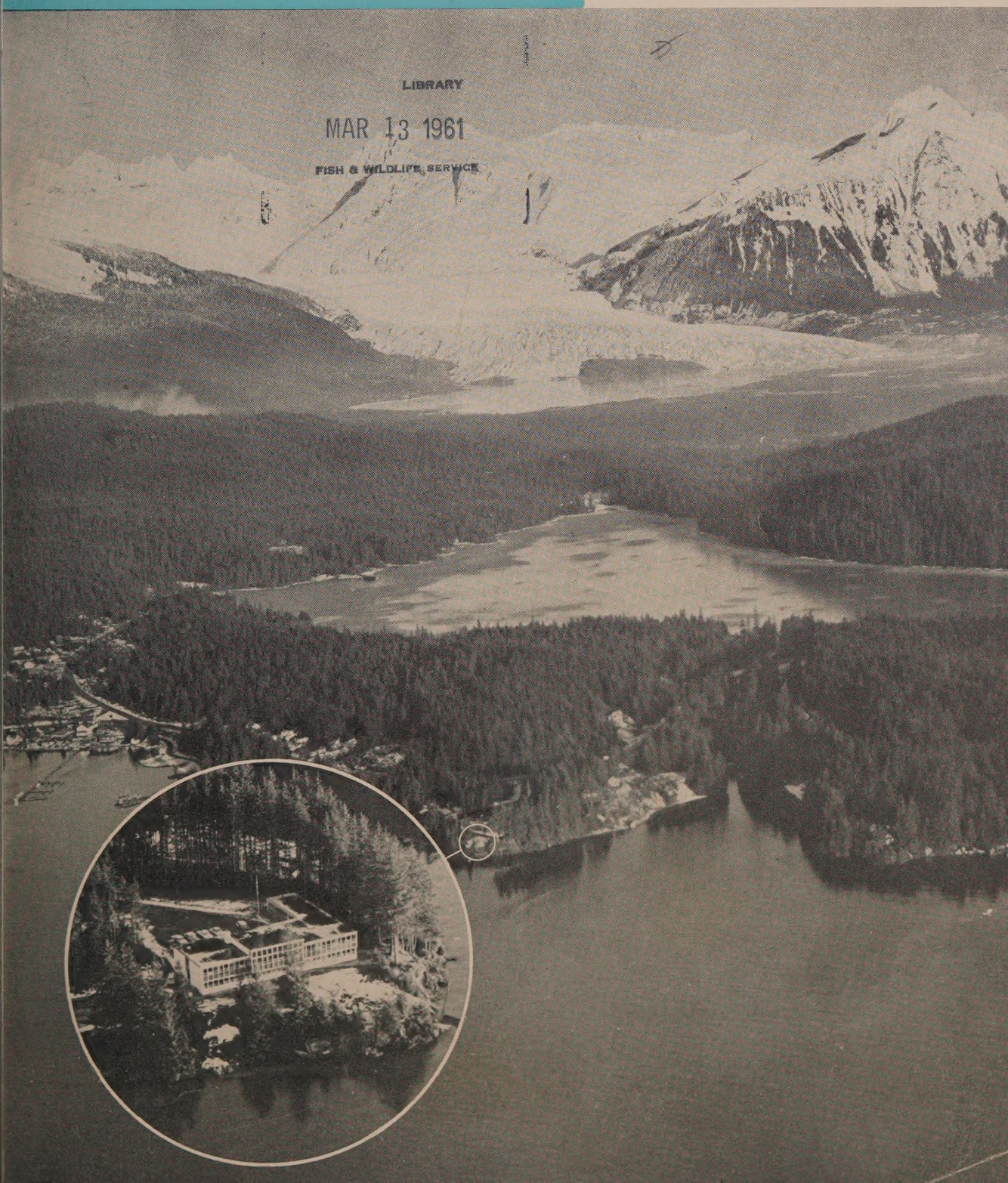
PACIFIC FISHERMAN

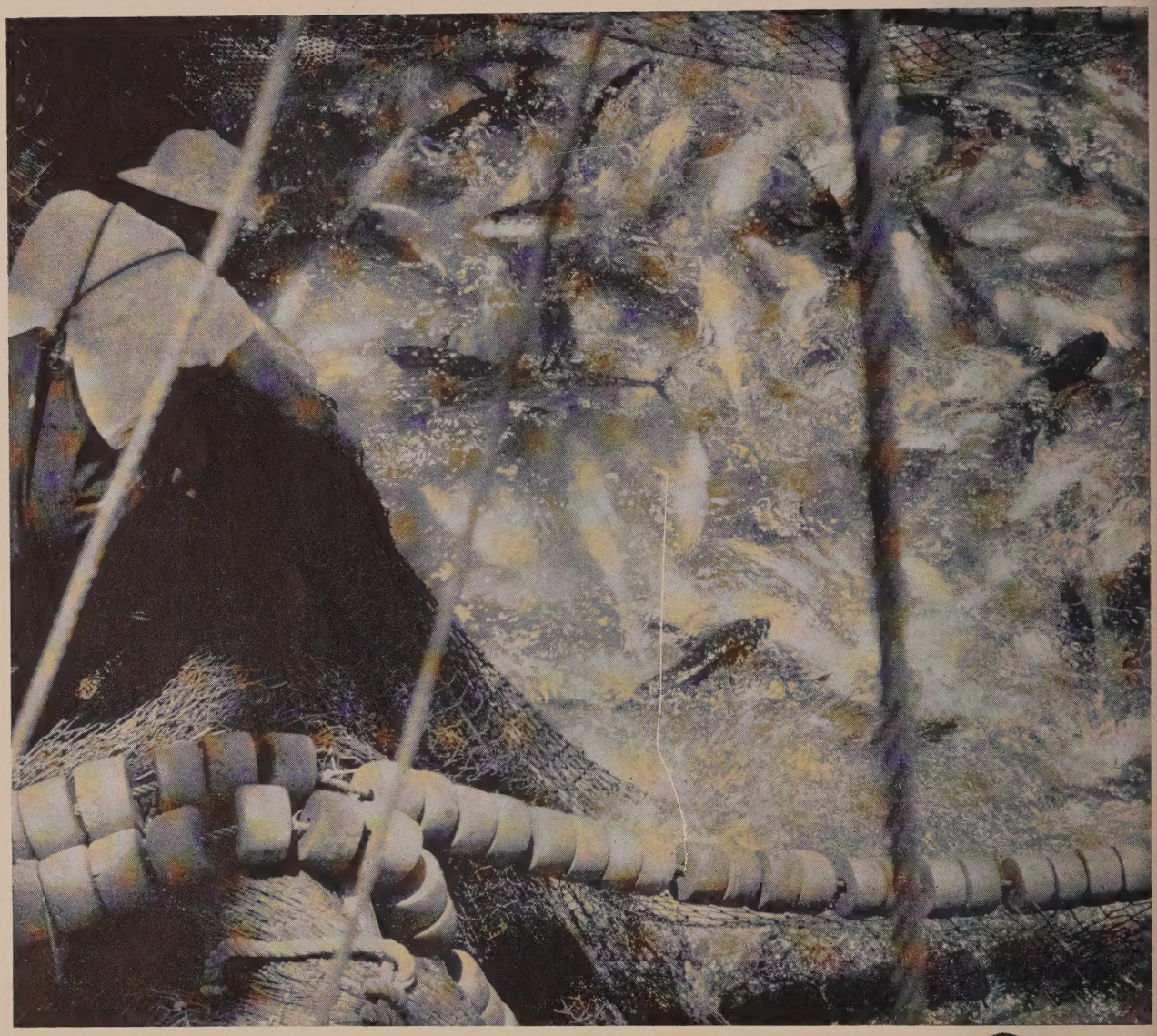
MARCH 1961

FIFTY CENTS

ALASKA RESEARCH NUMBER

LIBRARY
MAR 13 1961
FISH & WILDLIFE SERVICE





Anthony Nizetich, General Manager of the Fishermen's Cooperative Assoc., San Pedro, California, says:

"Nylon tuna nets aren't an expense ...they're a necessity!"

"Even though we'd heard right along that tuna nets of Du Pont nylon were great," Mr. Nizetich continues, "it wasn't until 1954 that a couple of the Co-op members bought nylon nets. I guess most of us were a little leery of paying out the initial purchase price. But not after we checked results with the fellows who did try nylon. They were seining an average of 9.7 tons of tuna a day against the 3.5 ton average the rest caught with hooks; and where it took the boats with nets of Du Pont nylon only 40 days to fill the boat, it took the others anywhere from 60 to 90 days.

"Those nylon nets paid their own way, both in extra haul *and* easy operation. With nylon there's no drying needed, no salting, no worry about slime, rot or exposure—and no danger of breaking. And they're easy to handle, too, because they don't absorb water.

"By now, about 95% of our 90 Co-op members have completely switched to nets of Du Pont nylon—and we're really sold on them. One man switched to nylon over five years ago, and he's *still* using those same nets."

What more can we add? Rely on your domestic netmaker to give you high-quality service and workmanship. But be sure to specify Du Pont nylon nets. The result will be higher catch, greater profits for you. E. I. du Pont de Nemours & Co. (Inc.), Wilmington 98, Delaware.

DU PONT
REG. U. S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

PACIFIC FISHERMAN

EDITORIAL STAFF

DeWITT GILBERT ..... Editor
STUART F. LEETE ..... Associate Editor
RAUL RODRIGUEZ ..... Associate Editor
CHARLES L. SHAW ..... Canadian Editor
CHARLES CISSNA .... Northwest Field Editor
MRS. A. E. SMITH ..... Editorial Secretary

BUSINESS STAFF

L. N. CROSBY ..... General Manager
CARLTON L. HILLYARD ..... Sales Manager
L. W. PONSFORD ..... Southwest Manager
DR. WALTER F. VOGENO .. European Director
BERNARD W. LANSDOWNE .. U. K. Manager
CHARLES C. BAAKE .... Circulation Manager
MRS. M. T. WILSON .... Production Manager

PUBLISHING OFFICE

Portland 5, Ore.
731 S.W. Oak Street ..... CA 2-1314

EDITORIAL AND ADVERTISING OFFICE

Seattle 4, Wash.
71 Columbia St. ..... MA 2-1626
San Francisco 5, Calif. S. F. Leete
500 Howard St. ..... EX 7-1881
Los Angeles 65, Calif. Raul Rodriguez
3501 Eagle Rock Blvd. ..... CL 5-7194
Vancouver, B. C. C. L. Shaw
1102 West Pender St. ..... MU 5-7287
New York 17, N. Y. ..... Mrs. L. Kremer
370 Lexington Ave. ..... MU 3-9294
Chicago 26, Ill. Miss J. D. Donaldson
1791 Howard St. ..... RO 4-3420
Cleveland 3, Ohio
4500 Euclid Ave. ..... EX 1-4180
West Germany Dr. Walter F. Vogeno
Koln-Merheim ..... 28, Attendorner Street
United Kingdom Bernard W. Lansdowne
London, W 1, England .... 130 Crawford St.

Cable—all offices—Milfreepub

PACIFIC FISHERMAN (with which is combined Pan-American Fisherman). Published monthly except January when publication is semi-monthly, by Miller Freeman Publications, at 731 S. W. Oak St., Portland 5, Ore. Entered as second class matter at the postoffice at Portland, Ore., under Act of March 3, 1879.

SUBSCRIPTION RATES: U. S., Canada, & Latin America, one year — $3, two years — $5, three years — $7. Other countries: one year — $4. Single copy 50c, except Yearbook Number, $1.

CHANGE OF ADDRESS—Send subscription orders and change of address to Subscription Department, PACIFIC FISHERMAN, 500 Howard St., San Francisco 5, Calif. Include both old and new addresses and zone number.

ADVERTISING: Complete plates only should be sent to PACIFIC FISHERMAN, 235 N.W. Park Ave., Portland 9, Ore. . . . Advertising copy and cuts, instructions and insertion orders should be sent to the Seattle office.

POSTMASTER—Send Notice 3579 to 500 Howard St., San Francisco 5, Calif.

A MILLER FREEMAN PUBLICATION

OFFICERS

WM. B. FREEMAN ..... President
MILLER FREEMAN, JR. Exec. Vice-Pres. & Treas.

Our Fifty-Ninth Year— MARCH 1, 1961 Vol. 59 No. 4

Table of Contents

Research Demand Rises 7
—2-year Emergency Study 9
—For Threatened Halibut 13
Knotless Netting for Tuna 20
S. E. Alaska King Crabbing 35
Watch Machine-Filled ¼-s 41

THE COVER

ALASKA—An Inspirational Setting for U. S. Research

● Inspiration of the Alaska scene as a setting for research seeking how Man best may use the riches of Alaska's land and sea without wasting and destruction is well expressed in the photograph on the cover of this *Alaska Research Number.*

It pictures at once the setting and the physical structure of the newest of Alaska's research facilities, the Biological Laboratory of the United States Bureau of Commercial Fisheries at Auke Bay, 12 miles from Juneau.

This scientific center, built at a cost of $430,000 since Alaska entered into statehood, is headquarters of the Federal fishery service's scientific studies in the North, just as the Montlake Laboratory at Seattle in the center of BCF biological and technological research in the Pacific Northwest. The Alaska Technological Laboratory of the Federal service is in Ketchikan.

● The Auke Bay laboratory is located where Auke Creek, draining the lake of the same name, enters salt water. There is a good run of salmon, including Sockeye, into Auke Lake, providing living material for study.

Auke Lake—and the word "auke" means "Little Lake" in Thlinget—lies between Mendenhall Lake, at the foot of Mendenhall Glacier, and the sea. The setting of this scientific center is as breath-taking as the scientific possibilities it faces. Behind it, only a breath away — a cold, quick-drawn breath — Mendenhall Glacier pours down in majesty from the continental Ice Cap to the sea.

● Director of the Auke Bay Laboratory is Dr. George Y. Harry, with Dr. William A. Smoker as assistant director. Responsibility for the five main functional categories are these chiefs: Red salmon studies, Dr. Charles J. DiCostanzo; Pink, Chum and King salmon studies, Theodore R. Merrell; Marine fisheries, Dr. Richard W. Hatch; Shellfish studies, Robert M. Yancey; Biometrics, Dr. Murray L. Hayes.

Harry L. Rietze is Alaska Regional Director for the U. S. Bureau of Commercial Fisheries.

● All research conducted by the new Federal laboratory and its detached field stations throughout Alaska from Ketchikan to Brooks Lake in the Bristol Bay area is closely coordinated with that of the Alaska Department of Fish and Game and the Fisheries Research Institute of the University of Washington.

The programs of all are planned in concert to complement and amplify the work of all, eliminating overlap, and saving time and money.

● The laboratory itself, the spirit of its personnel, the conformity of its program, and the financial support of the BCF for some ADF and FRI studies, provide re-assuring promise that the Congress and the Department of the Interior intend to recognize the national responsibility toward the conservation of the natural resources of Alaska and of the high seas adjacent.

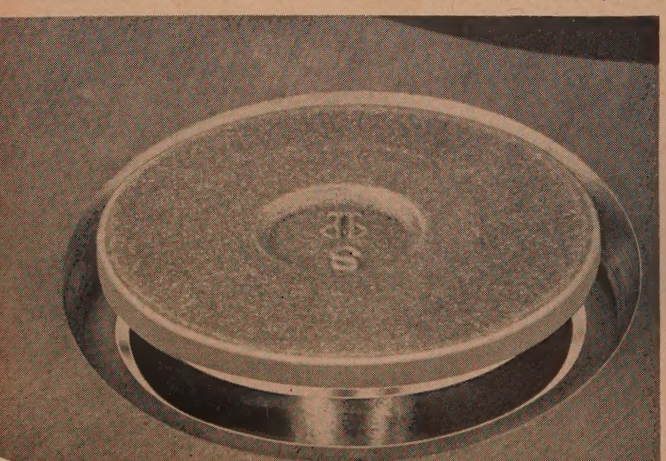
This spring Alaska and the American Section of the International North Pacific Fisheries Commission are asking Congress for $3.3 million to finance a two-year emergency research enterprise vitally needed for the protection of those resources.

● The responsibility is recognized. The need is very real, and the time is short.

Beefed up for hardest

You can't make money in drydock. With a torture-tested Onan marine plant, you'll be down for repairs far less often than with plants designed down to a price. Big beefy bearings, Stellite valves, shorter, stronger crankshafts in Onan generators assure you of dependable auxiliary power from the day you install through extra years of dependable performance.

Stellite coated exhaust valves and valve seats. One of toughest alloys known. Gives you up to 300% longer valve life than uncoated valves. It's the important details like this that make Onan more economical in the long run.



Exacting standards govern manufacture—years of specialized experience and extensive testing facilities control the quality of Onan Power Plants. Over 1000 different types and sizes of plants are produced by Onan.

use...even abuse

Onan electric plant still delivers full power after 12,197 hour test—equal to 487,888 miles

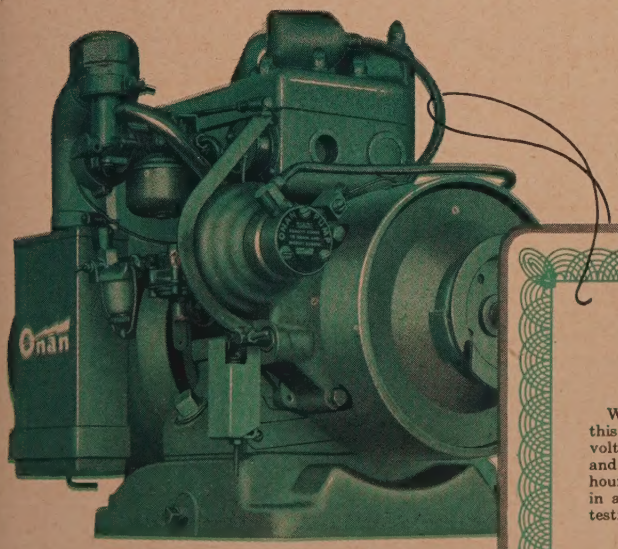
A grueling endurance test that lasted one year, nine months and 12 days could not stop Onan test plant #1068. Onan engineers used this production-built unit for an endurance run—and after it was all over, it still generated the full rated power promised on the nameplate. Proof that Onan's exacting standards and production testing give you a power plant with long, dependable life built in.

Over 1,700 other endurance units have been run by Onan engineers. In these tests every design feature and part has to prove itself before it can become a part of the Onan you buy. In addition, every type and size Onan plant is tested under all operating conditions which could conceivably affect performance on your job.

Hours of running in and testing under full load are given *every* Onan before it is shipped. An independent testing laboratory then spot tests Onan Plants that have already been tested by Onan—double assurance that every Onan will deliver its full nameplate rating. Only then does an Onan production run qualify for Performance Certification.

Buy *proven performance* when you buy an Electric Plant. See your authorized Onan distributor or dealer. You can depend on him for a lifetime of factory parts and service. He's listed in the Yellow Pages.

ONLY ONAN GIVES YOU THIS CERTIFICATION



PERFORMANCE CERTIFIED

We certify that when properly installed and operated this Onan electric plant will deliver the full power and the voltage and frequency regulation promised by its nameplate and published specifications. This plant has undergone several hours of running-in and testing under realistic load conditions, in accordance with procedures certified by an independent testing laboratory.

World's Leading Builder of Electric Power Plants

ONAN DIVISION, STUDEBAKER-PACKARD CORPORATION • 2733 UNIVERSITY AVE. S. E., MINNEAPOLIS 14, MINNESOTA

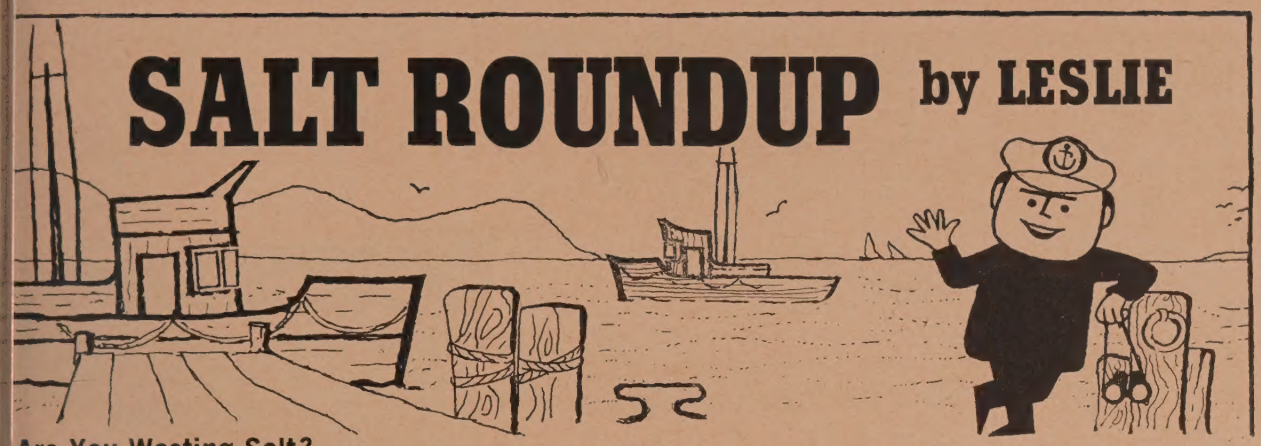
N·R·C NYLON FISHING NET
NIPPON RAYON CO., LTD.

IMPRESSED BY TOUGHNESS IN FISHING NETS? Then IMAGINE the advantages you'll gain when you put IMPASSABLE *N·R·C* NYLON FISHING NETS about!

Imposing in their toughness (NRC Nylon's strength is unsurpassed!)
Improved lightness (easier to handle, low moisture absorption.)
Impeccable compactness (pliable, compact even when wet; space-saving.)
Impervious to insects, mold, mildew, fungi.
Immune to sea water, fish oils, and most all chemicals.
Immeasurable advantages, including high abrasion resistance, good dyeing properties, resistance to light, etc., adding up to
Important new profits.
IMPLORING MAKERS FOR A Really Tough, Really Superior Fishing Net?
"Impossible," said some . . . NRC went right ahead and made you
IMPASSABLE FISHING NETS made of NRC NYLON.

NIPPON RAYON CO., LTD. OSAKA, JAPAN CABLES: "NIHONRAYON OSAKA"

SALT ROUNDUP by LESLIE



Are You Wasting Salt?

Can you depend on your Salometer to measure brine strength accurately?

Fish processors have to be sure. They use brine in many ways and at varying concentrations – in holding tanks, as seasoning, for refrigeration systems. Whenever brine strength is a critical factor, they turn to their Salometers.

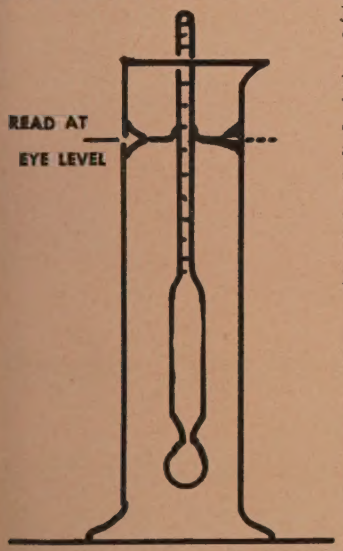
But a Salometer is only as accurate as the person who reads it. Let it (or he) err by two or three degrees and one of two things may happen:

You may be downgrading your product.

You may be wasting salt.

Tips on Reading a Salometer

A Salometer is not a complicated instrument. It runs on the same principle as the hydrometer that checks your car battery. Pure water measures 0° S on the Salometer scale; saturated brine, 100° S. But there's a little more to using a Salometer than just reading a figure off a scale.



Brine should be tested in a straight-walled, clear glass cylinder, resting on a level surface. The Salometer should be clean and dry when it is inserted in the brine. It should not touch the sides of the glass cylinder while the reading is being made.

Read the Salometer at the point where it meets the brine. This isn't as simple as it sounds since brine creeps up the stem of the Salometer and the sides of the glass cylinder. The reading should be made at the lowest point of this concave brine surface (see drawing). Careless reading may throw your brine strength measurements off by as much as three degrees.

Check the Temperature of Your Brine

Salometer scales are set for a certain temperature and are absolutely accurate for that temperature only. If your Salometer is calibrated for 60° F, then the brine should be at that temperature. If it isn't, the reading must be corrected by use of conversion tables. Send in the coupon below for your free copy.

SALT BRINE FACTORS @ 60°F

Degrees Salometer	Gal. Water Per Gal. Of Brine	Lbs. Salt Per Gal. Of Brine
0	1.00	0.0
10	0.99	0.2
20	0.98	0.5
30	0.97	0.7
40	0.96	0.9
50	0.95	1.2
60	0.94	1.5
70	0.92	1.8
80	0.91	2.0
90	0.90	2.3
100	0.88	2.6

Use Tables for Rough Guide

Where salt is used in refrigeration brines, exact measurements may not be as important, but fishing boat operators and canners will still want to approximate a certain brine strength. They can do this with Leslie's brine density tables. These show how much salt and how much water to mix to get a required amount of brine at any approximate strength from 0° S to 100° S. Fill in the coupon below for your free copy.

Of course, even here temperature plays a part since salt is slightly less soluble in cold water than in hot. Also, it's difficult to dissolve salt completely unless the brine is agitated.

Saturated Sales— For Us Both

However you like your brine, everyone wants sales at the saturation point. That's why Leslie is putting up banners and displays in markets throughout the 11 Western States to let its customers and yours know "It's Seafood Time" this month.

See you at the fish counter – and don't forget to buy salt!

Leslie

FREE

LESLIE SALT CO.
505 Beach St., San Francisco 11, Calif.
Please send me Salometer conversion table.....☐
Please send me brine density table.....☐

Name_____ Title_____

Company_____

Address_____

LESLIE SALT SPECIFICALLY FORMULATED FOR EVERY FISHERY AND CANNERY NEED!

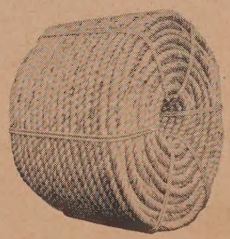
The COLUMBIAN Line

signals Bigger Catches!

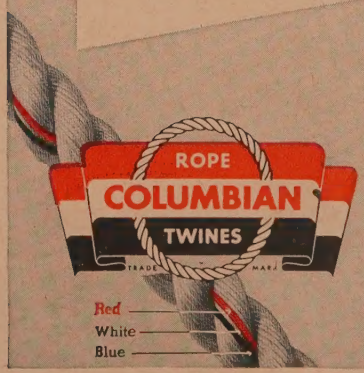
Whether you're trawling for shrimp in southern waters or going for whales in the North Atlantic, there's a Columbian fishing rope that will help you come in with bigger catches.

Columbian Tape-Marked Pure Manila Net Rope provides a balanced net when ropes with counter-acting lays are used for binding the opposite edges of a net. Columbian Trawl Line is made with an extra hard lay that stands long submersion. The strongest and longest-wearing fish nets are made of Columbian Nylon and Dacron seine twine.

Right down the line it's Columbian for safety – reliability – outstanding service! Preferred by fishermen for more than 50 years.



Columbian Rope, in all sizes, is available in desired footage. Because of the high quality and uniformity of construction, all Columbian Ropes are easy to splice and are preformed to resist fraying.



Columbian STALONg NYLON

Here's the strongest rope you can buy. Naturally waterproof. In sizes up to 10" circ. Made of plied yarn filament nylon, stabilized to prevent shrinkage.

Columbian POLYPROPYLENE

A light weight, all weather synthetic. POLYPROPYLENE does not react to changes in humidity, neither stretches nor shrinks, and is naturally waterproof.

Columbian Tape-Marked MANILA

The finest of natural fibre ropes. Available in sizes and types to fulfill almost every Marine requirement. Waterproofed and rotproofed for long service.

Columbian POLYETHYLENE

Size for size, this rope is stronger than manila. Its outstanding characteristic is that it floats. High Tenacity Polyethylene can be furnished in several colors and most sizes.

*E. I. DuPont Trademark

COLUMBIAN Rope Company

Auburn, "The Cordage City," New York

PACIFIC FISHERMAN

March 1, 1961

Wave of Determination To Intensify Research Rises in N.E. Pacific

• A massive tidal wave of determination sweeps the Pacific Coast of North America this spring—determination that the natural problems of Pacific fisheries shall be grapple with research of new intensity, and some new objectives.

Starting early in January, the wave gained height and volume in February, and in March was streaming through the Aleutian passes into Bristol Bay, over the banks where halibut and King crab abound, around the great gyral of the Gulf of Alaska, and through the archipelagoes of Southeast Alaska and British Columbia.

This research wave has three main components, two rushing ahead, while the third and larger moves more slowly, but reaches to higher levels and over a broader front.

• Dropping metaphor for reality, the plain facts may be stated thus:

1. There are three definite but distinct movements for accelerated and intensified research under way.

2. The United States through Federal appropriation is seeking to implement one on a two-year emergency basis.

3. Canada and the United States are engaging jointly in the second undertaking, concerned with halibut, and also at present designed to extend through 1962.

4. There is in process of development a plan for continuing, coordinated North-East Pacific biological research along the entire coastline in which the United States and Canada may be expected to participate separately, but working on carefully coordinated courses toward common objectives.

Egan Salmon Conference Seeks Long-Range Ideas For Effective Research

• Salmon science, industry and management consulted for three days in Juneau, Alaska, Feb. 15-17, and laid the framework for what is planned to be a long-range international enterprise in salmon research through the entire range of the species along the coast of North America and in the Northeast Pacific, and particularly in the Gulf of Alaska.

The conference, called by Governor William A. Egan of Alaska, was characterized by him as "the broadest meeting of biologists ever assembled to devise a pattern to reverse the depletion manifest in the salmon resource."

Clarence L. Anderson, Alaska Director of Fish and Game, explained that the conference, originally conceived as strictly scientific in character and representation, had been broadened to include as well representatives of industry, government and resource management.

All Pacific fishery agencies concerned with salmon were represented by biologists, and in some cases by administrators.

Although no commitment was sought or given, opinion at the conference seemed quite definitely against the creation of any new or over-riding organization to coordinate or direct the program, when formulated.

Perhaps the most specific proposal in this respect was that of Clarence L. Anderson, Alaska Commissioner of Fish and Game, who expressed the thought that the Pacific Marine Fisheries Commission would be the most likely agency. This proposal had more than moderate interest, inasmuch as the P.M.F.C. is limited to state agencies, and Alaska itself is not a member.

Evaluation Panel at the Salmon Research conference in Juneau, Feb. 15. From the left: Fred C. Cleaver, Robert J. Kallenberg, Dr. W. F. Thompson, H. B. Friele, A. Kemmerich.

● Six panels discussed various aspects of the salmon problem; and then on the final day an "Evaluation Panel" sought to underscore the significant points developed. Its opinions were placed in the hands of a "Drafting Panel," which will draw up the conference clusions in written form for further circulation, discussion, revision and development.

Eventually the conference conclusions are expected to emerge as a research program upon which future investigations can be developed with assurance of maximum value through planning, coordination, continuity and elimination of overlap

Membership of the various panels included:

Evaluation—Dr. W. F. Thompson, biological consultant, chairman; Robert Kallenberg, advisor, INPFC; Fred Cleaver, USBCF biologist; A. Kemmerich, PMFC director; H. B. Friele, president, Nakat Packing Corporation.

Drafting—Dr. Charles DiCostanzo, USBFC biologist; Dr. R. L. Burgner, Fisheries Research Institute; Dr. Howard D. Tait, chief biologist, ADF; Charles Meacham, ADF district supervisor; John R. Gilbert, biologist, Columbia River Packers Assn.

Industry Problems — Chairman, Dick Janson, chairman, Alaska Board of Fish and Game; Aubin Barthold, president, Alaska Packers Association; Ernest Kohlbase, Juneau Fishing Vessel Owners Assn.; Jay S. Hammond and W. O. Smith, Alaska legislators; S. G. Tarrant, president, Pacific American Fisheries; John Enge, manager, Kayler-Dahl Fish Co.; Gordon Jensen, Petersburg Vessel Owners Assn.; P. S. Ganty, president, Pelican Cold Storage Co.; Mr. Gilbert.

Salmon Resources Management — Herman P. Meierjurgen, chairman, Oregon Fish Commission, chairman; Richard Croker, California Department of Fish & Game; Walter Kirkness, Alaska Dept. of Fish and Game; Robert Schoning, Oregon fisheries director; Hans Jensen, Washington Dept. of Fisheries; W. R. Hourston, Pacific area director, Canadian Department of Fisheries; Loyd A. Royal, director, International Pacific Salmon Fisheries Commission.

Research and Management Problems—M. C. James, fisheries consultant, chairman; Mr. Croker, Sig Westerheim, Oregon Fish Commission; Ed Mains, Washington Dept. of Fisheries; Mr. Royal; Dr. A. W. H. Needler, director, Pacific Biological Station, Fisheries Research Board of Canada; Dr. Howard Tait.

Federal Research Programs—Ralph Silliam, Washington, D. C., chairman; Mr. Cleaver; L. Edward Perry, Oregon; Dr. George Y. Harry, Alaska; Samuel H. Hutchinson, Seattle, all of the U.S.B.C.F.

University Research Programs—Dean Richard Van Cleve, College of Fisheries, University of Washington; Dr. W. F. Royce, Fisheries Research Institute; Murray Hayes, U. S. BCF, Alaska; Dr. James E. Morrow, University of Alaska.

Artificial Propagation and Fishways — Dr. Lauren Donaldson, University of Washington, chairman; Milo C. Bell, consulting fisheries engineer; William Sheridan, biologist, ADF; Mr. Mains; C. H. Ellis, Washington State Dept. of Fisheries; Clarence Pautzke, assistant director, ADF; Mr. Croker.

Drafting Panel which will prepare the position paper of the Egan Conference on Salmon Research: from the left: Dr. Howard Tait, John R. Gilbert, Dr. R. L. Burgner, Dr. Charles Di Costanza, Charles Meacham.

Commissioners and Advisor—American members of the International North Pacific Fisheries Commission in the new U.S.B.C.F. biological laboratory near Juneau in February. From the left: Edward W. Allen, Milton E. Brooding and John H. Clawson, commissioners; Lowell Wakefield, an advisor.

2-Year Study Seeks Basis For Forecast, Escapement Optimum, Racial Identity

● Intensified research into unsolved aspects of the salmon resource mysteries of the North Pacific close to the continental coast of North America is the objective of a three-fold, two-year emergency investigation projected by the American Section of the International North Pacific Fisheries Commission.

Developed by scientists of the U.S. Bureau of Commercial Fisheries, the Alaska Department of Fish and Game and the Fisheries Research Institute, all of which cooperate in conducting the American Section's researches, the program visualized for 1961 and 1962 would cost $3.3 million.

Before the end of February a supplemental appropriation of this amount was being sought in Washington, D. C., where the Department of the Interior had approved it and Senator Warren G. Magnuson was pressing it would approval by the Bureau of the Budget, the Department of State and the Congress.

At presstime prospects for full approval were regarded as excellent.

● Need for the program was laid before the Alaska state legislature by the American Section in Juneau, and the enterprise received enthusiastic support.

Although the American Section meeting immediately preceded that call by Governor William A. Egan to consider a long-range, coordinated research undertaking, the two were quit distinct.

The American Section's emergency program frankly is aimed at eliminating any gaps which may exist in the United States' scientific case for continued abstention by the Japanese from fishing stocks of salmon east of the present Provisional Line. For this $3.3 million is sought *now*.

The Egan Conference was designed to consider and devise a long-range program for international study of salmon. No appropriation to implement this program is being sought at present.

● In presenting the case for the emergency before the Alaska legislature in joint session in Juneau Feb. 14, Milton E. Brooding, chairman of the American Section said:

"The North Pacific treaty is designed to protect salmon and halibut off the coast of Alaska. Our researches show these resources are gravely endangered.

"The United States and Japanese sections are in disagreement as to the interpretation of the treaty as it refers to the location of the Provisional Line bounding abstained waters. The commission has asked the three governments for guidance in this interpretation. Until it comes we are stalemated with respect to the Line.

"We must support our case for abstention scientifically. If we fail to do so, abstention falls.

"To prevent this we have determined this emergency research is needed. The help of Alaska is tremendously important in securing funds for this work, without which we may not be able effectively to support our arguments for abstention and to defend resources of North American origin from being fished to destruction along our coasts."

● General details of the program were discussed by Commissioner Edward W. Allen, who said to the Alaska House and Senate in the joint session:

"These fisheries are of great importance not alone to Alaska but to all Americans. We must have fuller knowledge for their protection. Our

Faces of Fish Men—Identifiable in this group at the Juneau Salmon Research Conference are: immediate foreground, S. G. Tarrant and P. S. Ganty; just behind them, from the left: M. C. James; W. R. Hourston and Dr. A. W. H. Needler, both of Canada; further back, Robert Schoning, Walter Kirkness, Kenneth Thorsen, Dr. Charles Di Costanza, M. E. Brooding, W. C. Arnold.

Thinking Hard, Donald P. Loker, left, and William C. Herrington give their attention to a point during the meeting of the American Section of the International North Pacific Fisheries Commission with its advisors in Juneau in February. Mr. Loker is vice president of Star-Kist Foods, Terminal Island, Calif., and Mr. Herrington is special assistant to the Undersecretary of State for fish and wildlife.

studies already have shown as much—including how much we still need to know.

"We have devised a two-year intensive emergency program of investigation to close the gaps. These are the three primary objectives of the investigation:

"1. We must know the capacity of the spawning grounds, so we can say more definitely just what is the optimum escapement required to provide sustained yield.

"2. We must develop methods of forecasting salmon runs more accurately, so we can be prepared to utilize them fully, while permitting the escapement required for that sustained yield.

"3. We must perfect means of distinguishing racial compenents of the runs, so the most productive elements of the run may be permitted to escape, while full utilization is made not only from excess numbers but also from the less productive strains or those whose spawning grounds already are well seeded.

"Greatly simplified, these are the objectives of the American Section's emergency research enterprise."

Spokesmen for the Fish Get Their Innings 3/13

● Fisheries interests will have their opportunity to testify on the subject of power dam proposals on the Snake River when the Federal Power Commission convenes a hearing in Portland March 13.

Participating will be attorneys and witnesses for state and federal fisheries agencies, the Idaho Wildlife Federation, Washington-State Sportsmen's Council, Fishermen's Cooperative Association, Northwest Fisheries Association, Alaska Fishermen's Union, Makah Indian Tribe, Oregon Wildlife Federation, the Yakima, Cowlitz and Chinook Indian nations, and the Columbia River Salmon Packers Association.

Two power dam applications are involved: that of the Washington Public Power Supply System, which seeks to dam the Snake below the Salmon, principal remaining spawning area for spring Chinook salmon and Steelheads; and that of the Pacific Northwest Power Co., whose site at High Mountain Sheep is above the Salmon.

Charge that the Pacific Northwest Co. eventually might seek to dam the Salmon at its Lower Canyon site is denied by its spokesmen, who point to a statement in one of the company's recent publications, where it is said:

"It should be made clear that *PNP does not propose to build Lower Canyon, and believes the Salmon River should be regarded as a fish sanctuary* until there have been tested and proven on other streams methods which will safely pass migrating salmon." (Emphasis is the company's own.)

Atkinson Observes Soviet And Japan Treaty Talk

C. E. Atkinson, in charge of North Pacific oceanic fishery investigations for the U. S. Bureau of Commercial Fisheries, was in Tokyo through February as the United States observer at the annual fisheries conference between Japan and the Soviet Union under the terms of their treaty on fisheries.

This is the first time that an American observer has attended the Japan-Soviet conference, although for several years observers from the U.S.S.R. have attended the meetings of the International Pacific Salmon Fisheries Commission.

Mr. Atkinson is particularly qualified as an observer, having some knowledge of both the Japanese and Russian languages, and having travelled extensively through the fishery areas of the two nations in the Far East. He was a member of the United States team of observers which visited the Soviet Union's fisheries in the fall of 1959; and has been in Japan a number of times in connection with the investigations of the American Section of the North Pacific Commission, which to a large degree have been conducted under his direction.

Soviet Returns Tags

Twenty-five tags which had been placed on Pink and Chum salmon during the fishing season of 1960 by the United States tagging research conducted by the Fisheries Research Institute were returned by authorities of the U.S.S.R. at the end of February.

The F.R.I. reported that the tags had been recovered in the Soviet coastal fisheries. No Red salmon tags were included.

With the salmon tags were 122 King salmon tags taken by the Russians in the course of their operations north of the Alaska Peninsula, where they commenced fishing for crabs in 1960.

Tuna Fishing is Excellent In First 2 Months of 1961

● California's tuna fleet, looking back on a successful 1960, seemed to be headed for more of the same in 1961.

Following the year end, when most of the vessels came into port and tied up for the holidays, cannery receipts dropped off temporarily. Then the fleet headed out to the fishing rounds almost in a body.

As January ended the month's catch began to show up in the cannery, and by early February, the Bureau of Commercial Fisheries reported that recepits had passed the 1960 figure.

Imports, held down by the good domestic catch and by slow fishing in the Western Pacific, dipped 12% compared to 1960.

Imports were preponderantly Albacore this year.

The tunamen had encountered very good fishing off the coast of Southern and Central Mexico during January, but as the year wore on the fishing tapered off in that region and the boats moved south, where they were again finding good fishing off the Guatemalan coast. Some skippers complained of shark trouble, worse than usual, which slowed down their operations, but there was nothing wrong with the tonnage. The catch up to mid-February was virtually all Yellowfin.

Conversions picked up a little. As this is written, the *Mauritania* is taking off on her maiden trip, having been converted into a "top deck model" seiner by Harbor Boat Building Co. of Terminal Island, Calif. The *Beverly Lynn,* 250 tons, had cleared on her maiden trip the week previous. The two jumbo tunaboats *Western King* and *Western Ace* were still in the yards pending completion of their conversion jobs.

Considerable interest was shown in the *Mauritania's net,* which was the first Trilock net to be shipped by a California tuna vessel. The net, made by U. S. Net & Twine Co., is of new type construction, without knots. The *Mauritania* went out under the command of Nick Mosich Jr. as skipper and the veteran Jack Borcich as net boss.

Inter-American Tuna Commission Meets

● The Inter-American Tropical Tuna Commission, made up of experts from the US, Costa Rica and Panama, met in Panama late in February to face a tuna industry that has changed radically since the Commission's last meeting a year ago.

The converted seiners, with their greatly increased efficiency and capacity, have been fishing most successfully during the year, their catches consisting mostly of Yellowfin. What effect this is to have on the Yellowfin resources of the Eastern Pacific was one of the questions most seriously discussed by the assembled experts.

The efficiency of the big seiners as contrasted with the bait-boats is forcibly shown when the year's record of the leading seiners is examined as a whole. Elsewhere on these pages is a list of the eleven leading purse seiners for the year 1960, with their records. *Santa Helena,* top boat, made nine trips during the year, bringing in a total of 2827 tons; the *Southern Pacific* was able to make ten trips according to cannery records, although the Bureau of Commercial Fisheries records show only nine. The season's shortest trip was only nine days, a record chalked up by the *Saratoga.* And just to show it wasn't an accident, the *Saratoga* did the trick twice.

Tuna World Fishing Industry

● The time seems to be here when tuna fishing is no longer becoming a world industry, it *has become* one. In February the *Santa Helena* cleared Los Angeles Harbor for Africa, to fish in West African waters for Van Camp Sea Food Co. The transfer of the leading seiner in the fleet, under command of one of the most successful fishermen in the business, Frank Gargas, to foreign waters certainly stamps tuna fishing as a full-fledged world activity.

Incidentally, the record of the *Santa Helena's* catches includes one load which was caught by her but transshipped to an "acting transport" (a tunaboat which did no fishing on the trip, but hauled the *Santa Helena's* catch home while she stayed on the fishing grounds and continued to fish).

High-Line Tuna Seiners of 1960

	Tons	Trips	Average	Skipper
Santa Helena	2827	9	314	Frank Gargas
Constitution	2563	8	320	Manuel Neves
Conte Bianco	2489*	9*	276*	Lou Castagnola
Paramount	2283	8	285	Anton Mizetich
Dominator	2247	8	281	Frank Soares
Jo Linda	2183	8	273	Gus Guidi
Southern Pacific	2167	10	216	Lou Brito
Saratoga	1996	9	221	Rich Madruga
Determined	1697	8	212	John Cvitanich
Jeanne Lynn	1681	8	210	Frank Correia
Southern Queen	1432	9	159	John Rippo

*Includes one trip for local Bluefin, 95 tons. Excluding this trip, the **Conte Bianco's** figures are 2394 tons, eight trips, average 299 tons per trip. She still remains No. 3 boat.

Southern California Domestic Tuna Deliveries

Cumulative totals for 1961 through Feb. 11, in tons, as reported by U. S. Market News Service

	Albacore	Bluefin	Skipjack	Yellowfin	Bonito, etc.	Total
Clippers and Albacore Fleet			386	1,959	...	2,345
Purse Seiners ...			276	13,587	386	14,249
Total 1961 through Feb. 11	...	...	662	15,546	386	16,594
Total 1960	...	110	4,486	9,660	17	14,273
Total 1959	...	88	6,417	6,600	112	13,217

"Intelligent Partnership Between Nations"

—An Editorial—

Right Honorable John G. Diefenbaker, Prime Minister of Canada, is the author of the following editorial on cooperation among nations for the conservation of natural resources which they share. The words were uttered by the Prime Minister at the signing of the Columbia River Water Resources Treaty in Washington January 17, 1961. They point out to all the world that resources can be conserved and shared, producing the greatest benefit for those who share them, fairly, and without sacrifice of dignity or sovereignty. Mr. Diefenbaker did not mention the treaty's effect on fisheries, for it will be indirect, although very real. It will make unnecessary for many years, perhaps forever, impairment of the main stem of the Fraser River in Canada or the Salmon River in Idaho for the development of electric power.

● This is an historic event in the development of an international resource.

Those who, in generations to come, assess the course of relations between the United States and Canada will judge the Columbia River Treaty to be among the great joint achievements of the Twentieth Century. It is a fruitful source of benefits in terms of power and light and also of flood control, which is becoming a problem of increasing urgency. The Treaty is an indispensable beginning of widespread and accelerated development throughout the valleys of the Columbia River Basin and will thus be a powerful stimulus to economic progress. The Columbia River Treaty is more than a blueprint for technical and economic development. It is a symbol of intelligent partnership between nations. It shows what can be done when there exists a mutual desire for progress. Indeed there could be no more impressive evidence of the capacity of the United States and Canada to pioneer in new methods of cooperation to their mutual advantage.

This is the first time that anywhere in the world an arrangement has been made between governments by which the operation of large water storages in one country produces vast benefits in another which are shared by both countries. The programme envisaged under the Treaty is based on skilled engineering and resourceful collaboration. The negotiating teams, under Mr. Elmer Bennett for the United States and the Honourable E. D. Fulton for Canada, have secured agreement on difficult and complex problems in a comparatively short time. Their task was performed with patience and in a spirit of compromise but without sacrifice or impairment of the independence and sovereignty of their respective countries.

The further development of this continent depends in substantial measure on the continuing readiness and ability of Americans and Canadians to husband and to harness their rich resources for the common good. In the development of the Columbia River Basin, as in the St. Lawrence Seaway, unmistakable proof is given of the determination to realize the unlimited possibilities of our natural environment. The treaty avoids intrusion into each others affairs. Each country retains full authority and responsibility on its side of the common border. Each will be strengthened, and the opportunities now opened up for increased practical cooperation between the people of the province of British Columbia and their neighbors in the states of Washington, Montana, Oregon and Idaho, to the south, will result in broader mutual understanding between us.

Hood Bay Cannery Destroyed by Fire

The modern salmon cannery of the Hood Bay Salmon Co., located at Hood Bay, off Chatham Strait, Alaska, and owned by the Angoodn Community Association, was destroyed by fire Feb. 16.

With the main buildings, power house, and some 16 power seine skiffs destroyed, loss early was estimated at $500,000 by James Hawkins, Juneau, area director of the U. S. Bureau of Indian Affairs, which supervised the operation of the Hood Bay company, along with those of other tribal community canneries at Hydaburg, Kake and Klawock. Albert Thompson, manager of the Hood Bay Salmon Co., was in Seattle at the time of the fire and left immediately for Angoon.

Loss was reported to be fully insured.

Only the watchman was at the one-line cannery at the time the fire was discovered. Members of the Angoon community, about 1.5 miles from the cannery, rushed there upon discovery of the fire, but were able to do little as the principal economic support of the community was wiped out.

The plant was built originally by F. J. Corneau in 1918 and bought 10 years later by the Hood Bay Canning Co. of which A. W. Wolf, August Buschmann and H. A. Fleager were principals. It was sold in 1947 to the Angoon Community Association, which has operated it since.

At the Egan Conference—In the front row, from the left: Richard Janson, chairman, Alaska Board of Fish and Game; Jay Hammond, Alaska legislator; Dr. Lauren Donaldson, U. of W.; Ralph Silliman, USBCF; Lloyd A. Royal, director, International Pacific Salmon Fisheries Commission; W. O. Smith, Alaska Senator. Identifiable in those immediately behind, John Smith, R. S. Croker, Dr. Richard Van Cleve.

Threat of Heavy Halibut Exploitation Generating Concern Internationally

● Acute concern over the effect which Japanese operations on the banks south of the Alaska Peninsula may have on the halibut population there is evident throughout the halibut industry of both the United States and Canada, in the councils of the international agencies responsible for this resource, and in governmental offices in Washington, Ottawa and Juneau.

At the end of February this concern was manifesting itself in two directions:

1. The International Pacific Halibut Commission was understood to be preparing an intensified study to determine the probable effect of extensive bottomfishing south of the Alaska Peninsula on the halibut stocks of the banks there, stocks which have been protected and re-built through international cooperation of the United States and Canada under the oldest international treaty for fishery conservation.

This program is designed to cost approximately $400,000 during the first year, with the United States and Canada sharing equally in the cost.

2. Insistence that inquiry be made of Japan as to how it is proposed to operate on trawlable banks south of the Alaska Peninsula without taking and destroying halibut, from the fishing of which Japan agrees to abstain in the International North Pacific Fisheries Treaty.

This position is supported by the contention that in this way the seriousness with which the matter is regarded be diplomatically emphasized.

● The prospect of extension by Japan and Russia of their heavy bottom fishing to Davidson and Sanak Banks and possibly further east was a primary topic for discussion at the meeting of the Halibut Commission with its advisors from both the United States and Canada at Prince Rupert, B. C., early in February.

Soviet interest in the development of a halibut fishery on the high seas south of the Peninsula was plainly acknowledged by Boris Kulikov, Soviet chief of international fisheries, at the meeting of the International North Pacific Fisheries Commission in Vancouver, B. C., last November. The right of the USSR to do so under present international law is not challenged.

Industry opinion, on the other hand, takes a different view of the Japanese authorization for bottomfishing by two factoryship units south of the Peninsula. It is contended in this connection that such fishing could not help but bear heavily upon the halibut resource, from which under the INPF treaty Japanese agrees to "abstain from fishing"..."halibut originating along the coast of North America"... in treaty waters "off the coasts of Canada and the United States of America in which commercial fishing for halibut is or can be prosecuted."

Japanese fishing pressure on fish stocks of North American origin hitherto has fallen almost wholly upon Red salmon originating in western Alaska.

It is notable that operations on halibut, and particularly on banks south of the Alaska Peninsula, will bear on resources which have been shared for many years by Canadian fishermen, who in 1960 shared almost equally with the Americans in the halibut taken from the waters in question.

● That the concern is not confined wholly to the Halibut Commission and the industry is evidenced in rhetorical questions asked of the houses of the Alaskan legislature in a joint session in Juneau Feb. 14 by W. C. Herrington, special assistant for fisheries in the U. S. Department of State.

In discussing before the legislature the question of future international problems related to the fishery resources of Alaska, Mr. Herrington raised these points directly pertinent to halibut:

"What is the relation in the Bering Sea between the extensive groundfishing activities and the halibut population—groundfish which are under abstention under terms of the North Pacific Treaty?

"What if the fishing fleets of Japan and the U.S.S.R. move south of the Alaska Peninsula? This will put them on important halibut grounds. What then?

"What will be the effect of such fishing upon the future of the halibut resource? To seek the answer to this last question the Halibut Commission through the United States and Canada seeks support for research designed to give the answer.

"Will Alaska support the mounting of such a program?"

There was no doubt about the answer, although it was not put to formal vote.

1960 Japan and U.S.S.R. Salmon Catches

(Shown in Metric Tons)

Species	USSR	JAPAN					
		Gillnet, Mothership	Gillnet, Land-Based	Longline	Coastwise	Japan Total	Asian Total
Red	4,000	28,047	2,454	74	.....	30,575	34,575
Chum	43,300	20,584	19,070	3,278	533	43,465	86,765
Pink	19,600	2,459	28,080	5,534	21,950	58,023	77,623
Silver	1,900	2,387	3,362	228	.....	5,977	7,877
King	700	499	519	99	.....	1,117	1,817
Total	69,500	53,976	53,485	9,213	22,483	139,157	208,657

NOTE—Data for the coastwise fishery is available through August only. Pink salmon data for coastwise fisheries includes Masou salmon, the species peculiar to Oriental waters.

Lack of Japanese Catch Data Handicaps Forecast Of Bristol Bay Red Run

● Details of the development of the agreed forecast of 22 million Red salmon as the most probable figure for the 1961 Bristol Bay run were made available in February. Close reading gave some analysts a somewhat more optimistic view of the outlook. However, the authors, representative of the Alaska Department of Fish and Game, the U. S. Bureau of Commercial Fisheries, and the Fisheries Research Institute, did not modify their original forecast of 22 million as the "most probable total."

The various indexes and data which they had available ranged widely in their indications.

What is known of the fresh water life of the fish due to return in 1961 tends to indicate a run materially larger than the prediction given.

On the other hand, the data drawn from high seas purse seine catches of immature salmon in 1960—those expected to return in 1961—incline toward much lower figures. As in 1960 data from this ocean fishing proved exceptionally accurate, it is given substantial weight in the 1961 forecast.

One problem in developing the 1961 Bristol Bay forecast was associated with the failure of the Japanese to furnish details of the catch of their high seas operations of 1960. To late February significant data had not been provided, either in numbers of fish taken by species, or in the areas where they were caught.

Only information available at time of writing was that contained in a table in this issue, made public in Tokyo early in February, but stating the catch in metric tons rather than numbers of fish.

Based on these tonnage figures, and the size of the fish in the cycle years, it is believed that the Japanese high seas operations took about 16 million Red salmon in 1960.

● It should be understood that the 22 million forecast is for the entire run which is expected in 1961, including what the Japanese fleet will catch, and the escapement which must be secured to safeguard the future of the resource.

Furthermore, it is based on the assumption that the Japanese catch of immature Reds on the high seas was only "average" in 1960. Lacking specific information from Japanese sources, the scientists preparing the forecast have been obliged to rely on this "average" assumption for one of the most vital factors bearing upon the run to be expected this year.

Inaccuracies which may eventually be found in the forecast probably will be attributable in large degree to this lack of information on the high seas catches by the Japanese operations.

● The average size of the fish expected to compose the 1961 Red run to Bristol Bay indicates about 12 fish per case, as compared with a season average of 15.4 on the Naknek-Kvichak in 1960.

Sockeyes Are Planted In Lewis River Lake

Attempting to establish a run of Sockeye salmon to the Lewis River, Washington, where no Sockeye existed prior to damning of the stream is being undertaken this year, it is announced by Milo Moore, Director of the Washington State Department of Fisheries.

Mr. Moore is planting 1,000,000 juvenile Sockeye in Merwin Reservoir on the Lewis in southwestern Washington.

The eggs utilized in this effort to initiate a new run were transported from streams in the Lake Washington watershed near Seattle and from the Cultus Lake watershed in British Columbia. Arrangements for securing the Cultus Lake eggs were made by the Washington Fisheries Department with the Canadian Department of Fisheries and the International Pacific Salmon Fisheries Commission.

The young Sockeye are being released into the 3,000 acres of Merwin Reservoir where they will live and grow for one year prior to their migration to sea.

Studies by the Washington fisheries agency show that excellent growth can be obtained in this reservoir. Environmental conditions there are similar to those Sockeye salmon require during their normal one year of lake residency in their natural habitat.

U.S. Fish Mortgage Plan Initiated for Alaskans

First application of the new fishery mortgage insurance program of the U. S. Bureau of Commercial Fisheries involved the Snug Harbor Packing Co. of Seattle and Cook Inlet, of which Joseph R. Fribrock is managing proprietor.

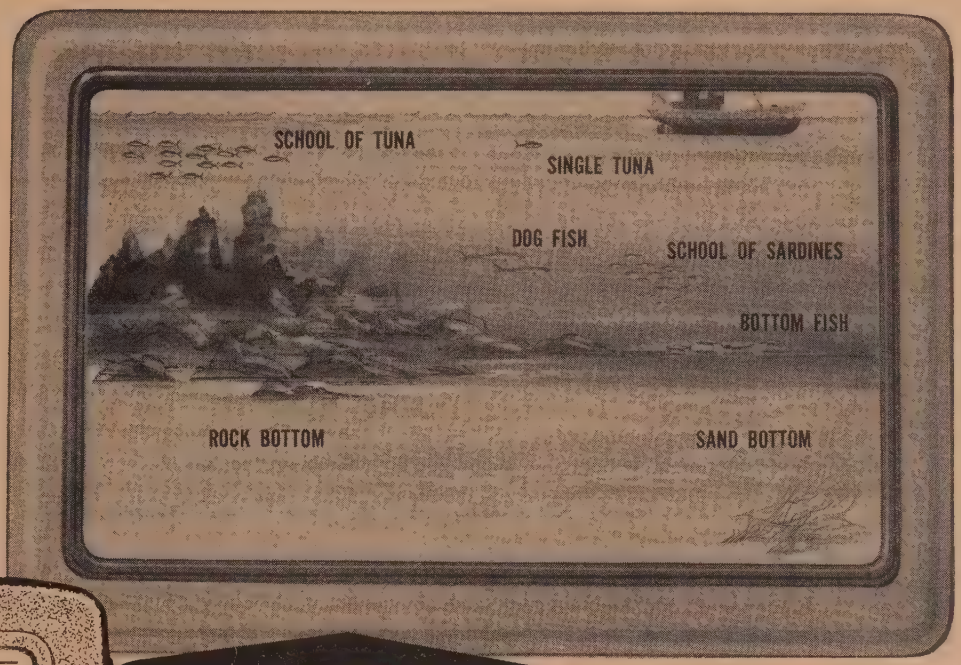
The insurance, guaranteeing a $75,000 loan by a Seattle bank, covers a fleet of 10 gillnet boats being built at a cost of $105,000. It runs for eight years.

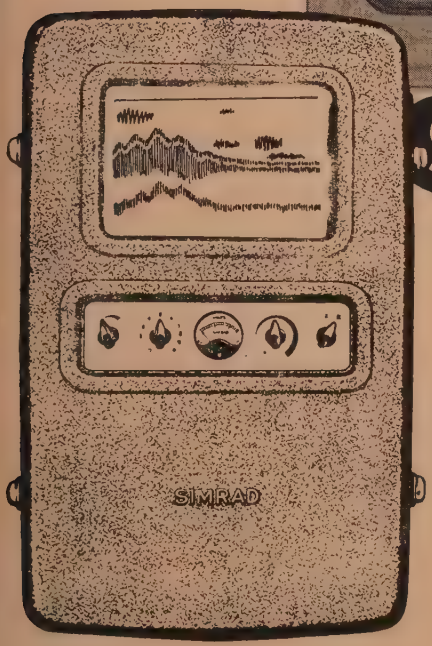
CATCH MORE FISH — FASTER

Because You Find the Fish Before You Set Your Gear

SIMRAD
SEES AND RECORDS

1. The Exact Depth
2. Type of Sea-bed
3. Single or Schools of Fish
4. Size of Fish
5. Size of Schools
6. Type of Fish
7. Depth of Fish
8. Separates bottom Fish from Sea-bed with "White Line"





SIMRAD

*Picture above illustrates the information recorded in graph form on the Simrad Sound Recorder shown at left. Various models from 0:320 fathoms to 0:3,000 fathoms. Available for all power supplies, D. C. and A. C. voltages.

A RECORDED* PICTURE *"At all times"*
OF EVERYTHING BELOW YOUR FISHING VESSEL!

Now you can find the fish—before you set your gear. The SIMRAD Recorder allows new profit opportunities to seine, line and trawl fishermen. This means a maximum catch in less time resulting in MORE PROFIT PER TRIP AND MORE TRIPS PER SEASON. *Write for Complete Information.*

DEALERS: Write today for literature, and complete information on KEY AREA FRANCHISES.

VIKING EQUIPMENT
COMPANY

2921 East Marginal Way • Seattle 4, Washington • MAin 4-5235

Mail Coupon Today for Complete Information Without Obligation

VIKING EQUIPMENT CO.
Box 3936
SEATTLE 24, WASHINGTON

PLEASE CHECK ONE FOR TYPE OF EQUIPMENT.

☐ Dragging ☐ Long line
☐ Tuna ☐ Salmon
☐ Sardine & Herring ☐ Shrimp

NAME:

ADDRESS:

CITY: STATE:

PAUTZKE and SUOMELA

Take New Responsibilities On Experienced Shoulders

● Clarence Pautzke, Alaska assistant commissioner of fish and game, at presstime appeared certain of appointment as commissioner of the United States Fish and Wildlife Service.

There he will succeed Arnie J. Suomela, who has held the position since it was created in 1956, as the No. 2 man in the federal administration of the United States fisheries and wildlife resources.

He will be second only to Frank P. Briggs of Missouri, a newspaper publisher and former Missouri senator, who has been appointed Assistant Secretary of the Interior for Fisheries and Wildlife in the Kennedy administration.

● Mr. Pautzke has been assistant commissioner in Alaska for a year, and in the summer of 1960, while constantly in the field, directed the handling of the enormous Bristol Bay salmon run in a manner which won for the Alaska Department, his field staff, and himself personally the highest measure of acclaim. Operators and fishermen alike recognized the overall administration of the astonishing run as an objective, unfettered and imaginative achievement of the highest order.

Mr. Pautzke, University of Washington fisheries graduate and a reserve naval officer, for 30 years prior to 1960 served the State of Washington as biologist in charge of game fish and as deputy director of fisheries. He was a member of the United States inspection team which visited the fisheries of the Soviet Union in 1959.

His appointment was widely hailed throughout the Pacific fishing industry, and at all levels. He is recognized as particularly well fitted for the post of Fish and Wildlife Service commissioner, in which he will supervise and direct both the Bureau of Commercial Fisheries and the Bureau of Sport Fisheries and Wildlife.

● Mr. Suomela, whom Mr. Pautzke succeeds, has been appointed fishery attache' in the American Embassy at Tokyo, a position for which he is specially suited because of his long experience with international fisheries commissions. Interestingly, Mr. Suomela's appointment was announced the day of his return from Japan where he served as the United States member of the International Pacific Fur Seal Commission at the annual meeting of this group composed of the United States, Canada, Japan and Soviet Russia.

Clarence Pautzke, expected to become commissioners of the U. S. Fish and Wildlife Service.

Mr. Suomela also during 1960 was chairman of the International Northwest Atlantic Fisheries Commission. He also has been a member of the International North Pacific Fisheries Fisheries Commission for several years; and of the International Pacific Salmon Fisheries Commission. Until recently he was an American member of the Inter-American Tropical Tuna Commission, and of the International Whaling Commission.

Thus no American, ever, has had as broad experience as Mr. Suomela on the commissions through which the United States participates with other nations in the conservation of shared fisheries.

Mr. Suomela is scheduled to take up his duties in Tokyo early in March.

● Mr. Briggs, new assistant secretary for fisheries and wildlife in the Interior Department, succeeding Ross Leffler, served out the U. S. Senate term of President Harry S. Truman. He has a distinguished record as a newspaper editor and publisher, as an active figure in Midwestern conservation, and in municipal and state political offices in Missouri.

● Another new appointment of special interest in the fisheries of the Pacific is that of Prof. Edwin O. Reischauer as ambassador to Japan.

A distinguished student of Far Eastern affairs, Ambassador Reischauer was born in Japan of American parents and speaks Japanese fluently. Mrs. Reischauer was Japanese by birth, the granddaughter of a distinguished elder statesman of Japan.

Bill Would Change California Fish Controls

A new bill introduced before the California Legislature is aimed at liberating the commercial fishing industry from what some spokesmen regard as control by sportfishing interests.

The proposed new law would create a Commercial Fish Commission separate from the State Fish and Game Commission, to set policy for regulation of the commercial catch. The bill was proposed by Assemblyman Vincent Thomas of San Pedro, one of the hardest-working and most sympathetic spokesmen for the commercial fishing industry in the Legislature.

Mr. Thomas pointed out that the commercial fishing interests now have no spokesman in California officialdom. Commercial fishing is regulated by the Marine Fisheries Branch of the Fish and Game Department.

Under the Thomas proposal, the Marine Fisheries Branch would be reorganized as a Commercial Fish Division, with policy set by the new Commercial Fish Commission. The regulatory functions now performed by the Legislature itself, such as setting the annual sardine seasons, would continue as at present, Mr. Thomas said, until confidence was established in the new Commercial Fish Commission.

Pacific Technologists Meet In Bellingham March 19-22

Pacific Fisheries Technologists will hold their 12th annual meeting at the Leopold Hotel, Bellingham, Wash., March 19-22. Maurice Stansby, director of the Bureau of Commercial Fisheries Technological Laboratory, Seattle, is chairman; and Walter V. Yonker, director, Northwest Branch, National Canners Association, is secretary-treasurer.

PACIFIC Fisherman's NEWS

MARCH
1961

Demand for Minimum Price, Up 59%, Threatens Period Of Halibut Fleet Turmoil

● With the union halibut fishermen demanding of the vessels owners that 1961 halibut shares — the fishermen call them "wages" for legal purposes —be based on prices of halibut which are at least 59% above the average realized on the Seattle market in 1960, the industry appeared at the end of February to be heading into a period of turmoil.

As the Bering Sea season opens April 10, not more than a month remained before the Western boats would be wanting to get away.

The Deep Fishermen's Union, headed by Clarence R. Nordahl, secretary-treasurer, is understood to be asking that the 1961 agreement require that their shares—or "wages," if you will—be based on a minimum price at Seattle of 27¢ per lb. *for all sizes* of halibut, with no deductions for ice and slime.

Figured back to the traditional basis of buying, this is equivalent to a price of 31.3¢. Thus, in 1960 and before fish were sold at a price from which 2% was deducted for ice and slime; and then 12% was deducted from the remainder for the heads. If you buy the fish at a price of 27¢ per lb. gross, including ice and slime and heads, you are paying the equivalent of 31.3¢ if traditional deductions for these unsalable portions are made.

Prices at other ports are scaled down generally in line with traditional practice to a minimum of 20¢, gross weight dressed heads on, without ice and slime deductions for all Westward ports, Cook Inlet and beyond.

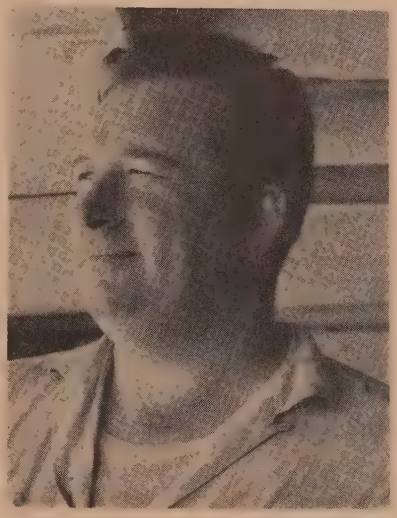
● It appears that decision to demand these minimum prices is being made by the large majority of halibut fishermen on a coast-wide basis, speaking through the Pacific Coast Halibut Union and Brotherhood Conference, of which Mr. Nordahl is chairman and Homer Stevens of British Columbia is secretary.

In Vancouver, B. C., the Union and Brotherhood Conference has announced the gradual development of a coastwide program for enforcing the conference demands upon halibut vessel owners.

It should be noted in considering the conference minimum price demand — and this is particularly important in the United States, where anti-trust laws are stringent and closely enforced — that the union fishermen's demand is directed at the vessel owners rather than at the dealers, with whom the fishermen cannot legally negotiate.

In short, the demand is that the shares—or "wages"—be based upon certain minimum prices, which the vessel owner must secure from the dealers. The vessel owners of course are without power to force the dealers by picketing or other means to pay these prices.

Thus the vessel owner, you might say, is caught without power off a lee shore in a growing gale.



Lee Hartley, chief engineer aboard the newly-converted tuna seiner **Mauritania.**

Promotion Campaign Aims At Halibut Trade Growth

● A very different program, which also seeks to stimulate the sale and consumption of halibut, but through application of modern merchandising, promotion, education and publicity, is receiving a large measure of encouragement through adherence of substantial members of the distributive

Dick Maier Administers Moss Landing Harbor

Dick Maier, harbormaster at Moss Landing since September 1957, has been appointed harbor administrator by the board of commissioners, succeeding Lloyd Wilson who resigned last October. The announcement was made at a special personnel session by president of the board Myron Etienne, Jr.

The new administrator has been closely connected with the waters of the Pacific Coast since 1919. He came to Moss Landing from Coos Bay in 1951 aboard his dragger *Warrior* and engaged in commercial fishing out of this port for a number of years.

Recently Dick moved up again. His office building located in the center of the "island" was picked up by a crane, loaded on a flatbed truck and moved to the new mooring slips.

Fishermen are pleased that the positions of harbormaster and harbor administrator have been combined and that Dick has been named to handle the affairs of the port.

"70,954,425 pounds of fish ago...

"...the trawler Atlantic came off the ways at the Bethlehem Shipbuilding Fore River Yard, Quincy, Mass.

"Through 736 trips and four years as a minesweeper and patrol boat, the Atlantic--and her original Nelseco Diesel--served dependably and well.

"A lot of service for a trawler engine? You bet! But we never gave the Atlantic anything but the best--Mobil fuels and lubricants. And Mobil engineering service was a big help, too. Mobil's right there when we want them...never leave us talking to ourselves.

"And now that the Atlantic has started a new operation with a B&W Alpha engine for main propulsion, you can be sure she's staying with Mobil products. 100% in our book--that's Mobil!"

ARTHUR A. DRANE
Vice-President of
Shawmut Fisheries, Inc.
Boston, Mass.

Arthur A. Drane
V.P., Shawmut Fisheries, Inc.

For top-quality Mobil products...and engineering service to match, call your Mobil Representative.

Mobil **Marine Products**

MOBIL OIL COMPANY, 150 East 42nd Street, New York 17, N. Y.
465 California Street, San Francisco, California

dealers in the primary markets of the United States and Canada.

This undertaking, which originated within the Pacific Northwest Fisheries Association, Seattle, is based upon a non-profit corporation called the Halibut Association of North America; and whose membership would be "limited initially to original receivers of halibut in the United States or Canada.

It is seeking adherence of halibut receivers representing 75% of the four-year average of the halibut entering the United States market. The agreement would run for a minimum of two years, and thereafter until terminated by individual members.

Support for the program would be in the amount of 1/10th cent per pound of halibut purchased by each dealer member.

Under the terms of the agreement, "the association agrees to use all funds received exclusively to carry on publicity, educational, promotional and research work for the benefit of the fresh and frozen halibut industry, as may be agreed upon by the board of trustees. The association shall contact the National Fisheries Institute and arrange for its director of publicity to assist the association in the utilization of its funds for the promotion of the halibut industry."

At presstime of this issue it was understood that the association was approaching the 75% of trade membership required for implementation of the program.

Pacific Fisherman's NEWS

MARCH, 1961 Volume 59 Number 4

DeWitt Gilbert .....Editor
R. N. Crosby .....Business Manager
Stuart F. Leete.....Associate Editor
Charles L. Shaw .....Canadian Editor
Raul Rodriguez.....Associate Editor
A. W. Ponsford .....Southwest Mgr.
Charles Cissna ....N.W. Field Editor

A Miller Freeman Publication

William B. Freeman .....President
Miller Freeman, Jr. ..Exec. Vice-Pres.

Publication Office
731 S. W. Oak Street, Portland, Ore.
CApitol 2-1314

Editorial & Advertising Offices
71 Columbia St., Seattle 4, Wash.
MAin 2-1626

DISTRICT OFFICES
370 Lexington Ave. New York 17, N. Y.
MUrray Hill 3-9294
1791 Howard St. (Rm. 308) Chicago 26, Ill.
ROgers Park 4-3420
402 Pender St. West Vancouver, B. C.
MUtual 5-7287
3501 Eagle Rock Blvd. Los Angeles 65
CLinton 5-7194
500 Howard St. San Francisco 5, Calif.
EXbrook 7-1881
315 No. Avalon Blvd. Wilmington, Calif.
TErminal 4-4538

Halibut Lay-up Rules Unchanged for 1961

Basic rules for lay-up between trips of the North Pacific halibut fleet will be unchanged in 1961 from the comprehensive program of moderating the halibut deliveries adopted in 1960.

Fundamentally, the rules provide an 8-day lay-up between halibut fishing trips, beginning at noon following arrival in port.

In the case of "camp boats", confined to British Columbia, provision is made for fishing periods, first of 12 days, and of 10 therafter, each separated by an 8-day lay-up.

The only exemptions permitted are in the case of breakdowns,

Organizations represented in the Halibut Conference held in Prince Rupert in February, at which rules were re-adopted for 1961 were:

United Fishermen and Allied Workers; Deep Sea Fishermen's Union, Seattle and Prince Rupert; Fishing Vessel Owners Associations, Seattle, Vancouver and Prince Rupert; Native Brotherhood of B. C.; Pacific Trollers Association; Local 30, ILWU, Ketchikan; Petersburg Fishermen's Union (independent); Vessel Owners Associations of Petersburg, Juneau, Sitka and Hoonah; Native Brotherhood of Alaska.

The Standard of Quality

- Drag or Trawl Winches of all types and sizes
- Purse Winches for all types of seiners
- Heavy duty Dandeline Blocks, Purse Blocks, Crab Blocks, Purse Davits, Stern Davits, Drag Doors
- Anchor Winches for boats 40 ft. and over

Is the Northern Line

Built by

Tacoma Boatbuilding Co., Inc.

Arne Strom, Owner
132 Sitcum Waterway, Tacoma 2, Wash. Phone: MAin 7-8138

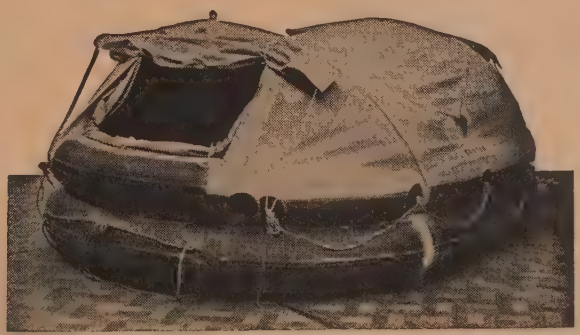
Heavy Duty Radiotelephone

NORTHWEST
Model NW-3

- 260-W INPUT TO FINAL
- TUNABLE RECEIVER, 540-14,500 KC
- 11 CHANNEL 2-9 MEGACYCLES

Northwest Instrument Co., Inc.
1403 West 45th St.
Seattle 7 SUnset 4-8444

COMPARE LIFERAFTS BEFORE YOU BUY



ONLY ELLIOT HAS:

1. U. S. Coast Guard Approval.
2. Saved lives (115 to August, 1960)
3. Double canopy and floor, insulation against cold.
4. The only certified inspection service for Elliot in Washington, Oregon and Alaska.

Nordby is authorized to help you make sure your liferaft will be ready when you need it.

THE HOUSE OF FRIENDLY SERVICE
NORDBY
SUPPLY COMPANY

Fisherman's Dock Seattle 99 AT 2-9607

Knotless Netting Comes to Tuna Seining on Convert "Mauritania"

● Number Three of the 1961 crop of converted tuna seiners, the *Mauritania,* an all-steel, 350-ton vessel, cleared San Pedro, Calif., in February on her maiden fishing trip.

Item of highest special interest about the *Mauritania* is her new net, which is the first of its type to be tried out in the tuna fishery. Made by U. S. Net & Twine Co., the new net has no knots, is said to be stronger as well as less bulky than conventional nets. On her trial run it gave evidence of being exceptionally strong, and the skipper of the new seiner, Nick Mosich Jr., although cautious in expressing himself, said he had high hopes that the net would work easily, fast and dependably.

The *Mauritania* is a "top-deck" type conversion; that is, the upper deck has been built out over the stern and the winch and work-space is on a higher level than the main deck. With this type of construction, it is unnecessary to level off the hatch coamings on the fish wells, and equally unnecessary to reduce fish-hold capacity lost in dismantling the bait tanks.

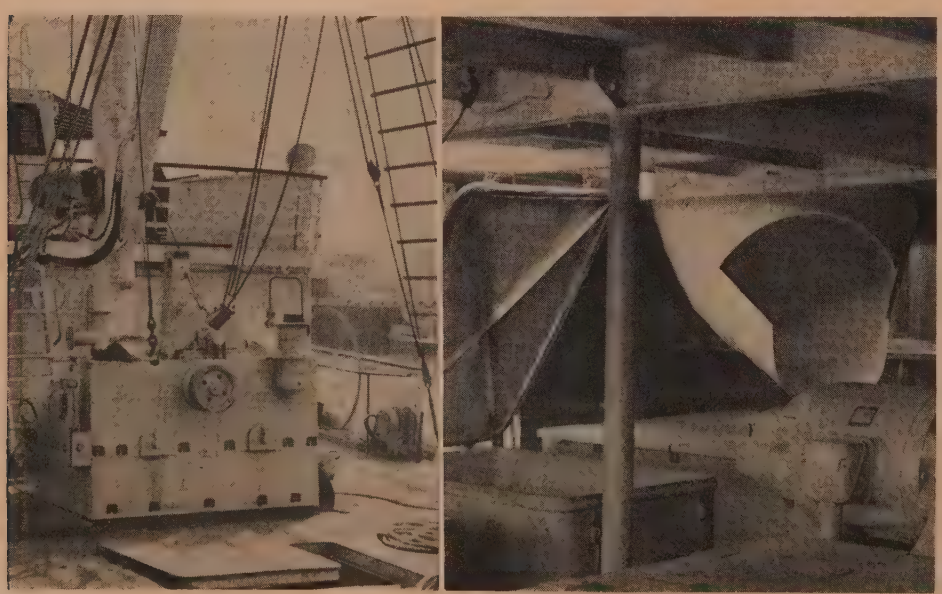
To move the fish into the holds, a steel hopper is used, the trailed tuna being chuted through a hatch in the top deck. The hopper is on a swivel and can be steered into any of the various wells through its existing hatch below.

Nick Mosich Jr., skipper of **Mauritania,** shows some of the knotless nylon netting which this converted vessel is pioneering in tuna seining.

"Like a Hospital Ship"

● In conversion at Harbor Boat Building Co., Terminal Island, Calif., the *Mauritania* was given a pretty thorough overhaul. Her engines were given a complete going-over. Main engine is a 6-cylinder 840-hp. Superior, with two 6-cylinder 175-hp. Superior auxiliaries.

The overhaul job was far from confined to the engines, however. The *Mauritania* goes to sea with a virtually complete new pilot house and galley and a thorough clean-up job in her passages and quarters. Her engineer, Lee Hartley, is proud and pleased with the job as it is, but he is far from



Fish Handling is simplified on **Mauritania.** Picture on left shows her Northern Seiner winch set up on the upper deck, and the hatch through which the tuna are slid from the brailer. On the right the funnel which, moving in a circle, can distribute the fish through chutes to any of the cargo wells with a minimum of further handling.

45,000 hours deep-water dragging before first engine overhaul...using RPM DELO Oil

The 56 foot dragger Noyo Star operates out of Ft. Bragg, California. Built in 1944, she received her first engine overhaul in 1957 . . . 13 years after launching! The Noyo Star uses RPM DELO Oil exclusively.

"I wouldn't use any other oil," says Owner and Captain Manuel Figueredo. "We ran 45,000 hours before the first overhaul! There were no stuck rings. There wasn't any corrosion . . . the engine is still in beautiful shape. We fish hard, every day, dragging in depths up to 350 fathoms, but "RPM DELO" keeps our diesel in perfect condition."

Shipnotes: 150 horsepower Murphy diesel powers the M.V. Noyo Star. Engine required only one overhaul in last fifteen years. Top speed is nine knots—fishes for sole, rock and ling cod. Navigation and fishing aids include a Fathometer, radio and Loran.

Lubricating problems? Let a technically qualified Standard Engineer solve them for you. His practical experience and a wide range of top-quality products assure an economical solution to your problem.

The largest field force of lubrication engineers in the West is at your service. For this valuable free technical help, just call your local Standard office, or write Standard Oil Company of California, 225 Bush Street, San Francisco 20.

LUBRICATING OILS RPM DELO

STANDARD OIL COMPANY OF CALIFORNIA

TRADEMARKS "RPM DELO" AND CHEVRON DESIGN REG. U.S. PAT. OFF.

Mauritania, former clipper converted to tuna seining, with her fishing operations all conducted on the upper deck, with the Northern Seiner winch shown on deck at the foot of the mast.

satisfied. "This boat," he told *Pacific Fisherman,* "will look like a hospital ship before we're through with her." Even as she is, she has plenty of space aboard, with accommodations for two or three men over and above her crew of 13, including Jack Borcich, the skipper.

Her pilot-house and chart-room, both completely renovated and spruced up, contain all the necessary navigation aids: Fathometer, Sperry automatic pilot, Ranger radar, Newcomb and Hammarlund radio receivers, Navy-RCA radio sending and receiving equipment. Her entire electrical equipment was overhauled and renovated by Vic LoCicero, well-known marine electrical contractor of San Pedro.

Like almost all seiners now, the *Mauritania* has navigation controls on the port rail outside the pilot house, so the pilot can maneuver the ship and keep an eye on what goes on the fishing deck aft. She also has an intercom system with loud-speaker stations at all the critical points.

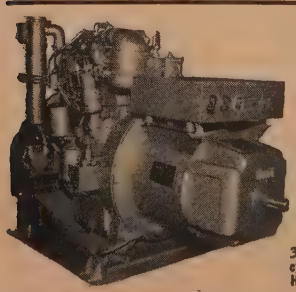
● *Mauritania's* refrigeration system is Kohlenberger, with 3 100-ton compressors for the fish holds and one 30-ton compressor for the ship's electrical system, day box, etc.

The big Northern Dragger net winch is powered by a 50-hp. electrical motor with reduction gear. Controls for the Puretic power block are all hydraulic, the system engineered by Marco of Seattle.

Her net measures 500 fathoms long, which came to 435 fathoms hung, by 40 fathoms deep. The assembled net consists of six strips of 4¼-in. mesh, with 50 meshes of eight-inch salvage next the lead line. The bunt webbing is Trilock No. 54, the rolling strip is Trilock No. 48 and the rest of the net Trilock No. 42. Her corkline, which is Plymouth Cordage nylon, is ⅝-in. for most of its length, with 50 fathoms of ¾-in. along the bunt. The net will be floated by 6300 floats, 8 in. by 6 in., the biggest floats now available. About half the floats are Spongex, the balance Yellow Buoy. Her lead line in ⅝-in. galvanized steel chain, with ten-inch rings.

The new seiner, which, by the way, was originally built by Avondale, ships a new skiff made by Mardesich Cabinet and Boat Works of San Pedro. The skiff measures 28 ft. by 16 ft., and is powered with a GM 471 engine, with a 3½:1 reduction gear, also GM. A wood skiff, her sides are completely covered with glass fiber.

The *Mauritania's* command consists of Nick Mosich Jr. skipper, Jack Borcich net boss, and Lee Hartley chief engineer. Nick Mosich Sr., an experienced fisherman, sailed with the ship on her first trip. Her owners are John and Steve Vilicich, Manuel Cardoza and Nick Mosich Sr. and Jr.



3 KW — Model 3 - MDSL, 1 - cylinder, 4-cycle, water-cooled, Heavy Duty Diesel.

Choose a plant that meets your specific requirements. Larger and more powerful electronic equipment requires more power —increasing use of electrical equipment of all kinds on board require more power. From the wide range of ONAN generating plants there is one to meet your needs.

Where *DEPENDABILITY* Counts

ONAN *IS THE CHOICE!*

ONAN has a generating plant to fit your needs!

Afloat or for shore stand-by service ONAN will provide dependable, economical electric power. Take a look at the wide range of fine ONAN plants. Air-cooled—water-cooled; gasoline, L-P gas or diesel from 500 watts to 230 kilowatts.

FREMONT ELECTRIC CO.

Switchboards - Instruments - Switches - Electric Wiring - Repairs - Service - Installation

744 North 34th Street Seattle 3, Washington MElrose 3-2323

SEATTLE BRANCH 1312 Airport Way MAin 4-7984

BREMERTON BRANCH 610 Sixth Street ESsex 7-3731

This MURPHY DIESEL has powered the NOYO STAR for 13 years

"Noyo Star has had the same crew and the same engine for 13 years of busy operation," says Manuel Figuerido, skipper-owner of the successful salmon fisher and drag boat out of Ft. Bragg, California, "and we wouldn't trade our Murphy Diesel for anything. It is economical, dependable, idles well or gives us 10 knots at 1200 rpm. We take care of this engine but we don't baby it. It gets about 300 hours per month of operation during the fishing season, giving us good fuel economy and a lot of confidence about getting back in." Bob Silvera and Jack Kostick, crew members for 13 years, are as enthusiastic about the Murphy Diesel as Figuerido. "We never have any worry about engine trouble," they say.

Before you power or repower your boat, ask Murphy owners in your waters about the advantages Murphy Diesel power can give you. Then ask your Murphy Diesel Dealer to explain the features that make Murphy Diesels top preference with so many successful fishermen.

Installed as original equipment in the Noyo Star 13 years ago, the Murphy Diesel develops 150 continuous hp at 1200 rpm, and uses 2:1 reduction and reverse gears.

MURPHY DIESEL COMPANY

5301 W. Burnham St.
Milwaukee 19, Wisconsin

Propulsion engines 105 to 315 hp; marine auxiliaries from 105 to 320 hp; marine type generator sets from 60 to 227 kw.

SEE YOUR MURPHY DIESEL DEALER, TODAY—

ALASKA-PACIFIC SUPPLY, INC.
5451 Leary Ave.
Seattle 7, Washington

NORTHERN ENGINE & EQUIPMENT LTD.
396 W. 5th Avenue
Vancouver 10, British Columbia

NORTHERN ENGINE & EQUIPMENT LTD.
Box 184
Prince Rupert, British Columbia

OSWALD MACHINE & EQUIPMENT CO.
2936 Hyde Street
San Francisco 9, Calif.

BOLSTAD SALES & SERVICE
401 So. Centre Street
P.O. Box 630, San Pedro, California

MURPHY DIESEL

3908

Top Louisiana Shrimp Skipper Rates

STARR

NYLON NETTING

"Best in the Bayou"

"The Knots Hold . . . No Rot . . . No Drying Worry . . . Most Economical", says Capt. Leo Toups of Trawler 'Overseas'.

"I use STARR webbing made of nylon with either two-inch or two and one quarter inch strength and I find it's far superior to anything I've ever used. The knots hold better than I thought possible, there's no rot and I never have to worry about drying my nets. In fact, I'm still fishing with my first STARR net I bought five years ago. And that's real economy. I recommend STARR netting to many captains along the bayou because, in my opinion, it's the best all-around net made for a fisherman.

(Capt. Toups of Cut Off, Louisiana has been a fisherman since he was thirteen years of age and now enjoys a reputation of being one of the top fishermen along Bayou La Fourche.)

Another in a new series of Starr advertisements direct from the fishermen using Starr Nylon Netting.

STARR NETS

STARR NETTING . . . STAR PERFORMANCE

A. M. STARR NET CO.
EAST HAMPTON, CONN., U.S.A.

Above the Water Line

NAVICOTE
MARINE FINISHES

Below the Water Line

HART & BURNS CO.
DIVISION OF
DEVOE AND RAYNOLDS COMPANY, INC.
2625 DURAHART STREET RIVERSIDE, CALIFORNIA

'Sea Pride' Pioneers Fish-Finder In California Tuna Fishing Fleet

● A highly specialized Norwegian fish finder is being pioneered in the California fishing fleets aboard the seiners *Sea Pride* and *West Point*. This is an echo sounder with horizontal scanner, made by Simonsen & Mustad A/S of Horten, Norway, under the trade name Simrad.

The Simrad echo sounder works under water about the same as a radar works above. Radar sends out electrical impulses which are bounced back by any object that comes within the radar range. The signals appear on the radar screen, with which almost all ocean fishermen are familiar.

Simrad Fish Finder recording unit on bridge of the **Sea Pride,** which is pioneering this horizontal - vertical sonic fish detection system in the California tuna fishing fleet.

Since it is impossible to send out electrical impulses under water, water being a conductor, Simrad does the job by sound waves, which carry very successfully under water. A transducer, installed on the bottom of the vessel and extending down into the water, sends out sound waves which are bounced back by any object within range—for instance, a school of fish. The returned impulses are registered on a traveling graph in the pilot house, and when the skipper reads the indications, he can tell where a school of fish is likely to be, and head the vessel in that direction.

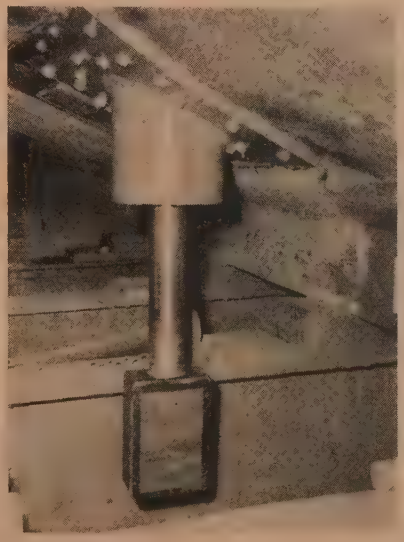
The *Sea Pride* installation can spot fish at a distance of approximately one mile, within a horizontal sweep of 180°. At the same time, it scans 90° vertically, so the indications can be read to determine how deep the fish are as well as how far away and in what direction. Vertical scanning range is about 1500 fathoms.

When a reading appears on the indicator, the skipper can hold the Simrad pointed on the target, and change the direction of the vessel to meet the fish.

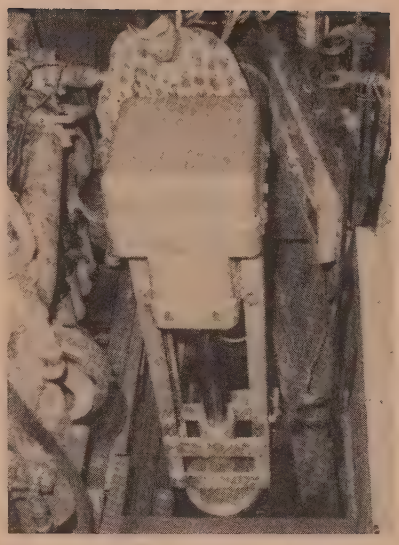
● One effect of having a Simrad aboard, it was pointed out by Dick Bates, president of Benrad Inc., which made the *Sea Pride* installation, is that better use can be made of airplane spotting by co-ordinating aerial with Simrad scanning. The Simrad will relieve the plane of most of its short-range work with the vessel, freeing it for long-range fish-finding, which is the job the plane does most efficiently.

The Simrad can be used for locating other subsurface objects besides fish. Vessels in Sweden, where underwater scanning is in wide use, have found the equipment extremely helpful in sailing the vessel into unfamiliar ports or in strange waters.

The model used in the *Sea Pride* installation, which is adequate for vessels of her size and function, cost in the neighborhood of $12,000, and the installation itself came to about $2000. Benrad engineers, Mr. Bates said, will conduct a short training course for fishermen, to inform them in how to make the best use of the echo sounder.



Transducer partly extended through the hull of **Sea Pride** during installation. The unit is fully retracted when not in use.



Engineroom Installation of the Simrad fish-finder showing the vertical mechanism controlling the transducer in retracted position. Engineer examining the device is Dick Bates, president of Benrad, Inc., which made the installation.

The *Sea Pride* (capacity 125 tons) is not the biggest vessel in the fleet, which is in fact the reason why she was chosen for a pilot installation. It was thought that a better test of the equipment would be made if it was installed on a vessel nearer the average than if the test was made on one of the bigger units. Also, the *Sea Pride* fishes not only for tuna but for local Bluefin, mackerel and sardines, so that the echo sounder will be tried out on various different types of operations. Her skipper is Nick Mardesich, and she fishes for Star-Kist Foods, Terminal Island, Calif.

The *Sea Pride* had her Simrad installed at Harbor Boat Building Co., Terminal Island, where she also underwent an overhaul and cleanup. Most of the installation work was done by Harbor Boat mechanics, with Benrad engineers co-operating on the job.

Tuna Skippers Visit Momoi Plant at Ako

Capts. Borti Petrich and Nick Marincovich have recently made a trip to Japan to visit the Momoi netting factory at Ako, according to Ben Ichiyasu, Momoi's U. S. manager.

Capt. Petrich went over to supervise the construction of a complete tuna net which he has purchased from Momoi and which he will use on its arrival here.

Are you registered?

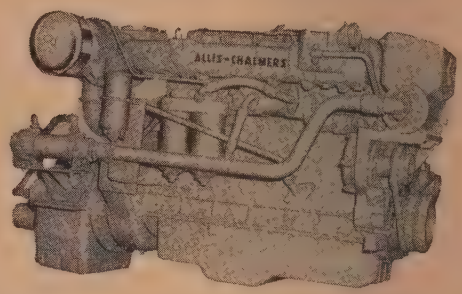
If you've recently acquired a radio-equipped boat, you may miss important calls from shore unless you're registered with us. Simply phone our nearest business office and ask for the ship telephone representative. He'll register your call letters for the entire Pacific Coast. For more information about radiotelephone services, ask him to send you our directory and fact-filled ship telephone service booklet.

Pacific Telephone **Pacific Telephone Northwest**

PART OF THE NATION-WIDE BELL SYSTEM

A NEW KIND of Diesel!

ALLIS-CHALMERS 11000



- 210 hp @ 2200 rpm (Turbocharged)
- 6 cylinders • 4 7/16-in. bore • 5 9/16-in. stroke
- 516 cu. in. displacement • 19 qt. oil sump capacity
- Engine weight 2650 lbs. complete with 2:1 gear, starter and generator.

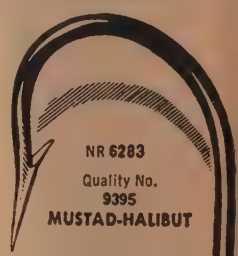
NEW high sustained torque! NEW fuel economy! (the 11000 uses up to 27% less fuel than other engines in its class.) NEW faster starting! NEW cleaner operation for longer trouble free life.

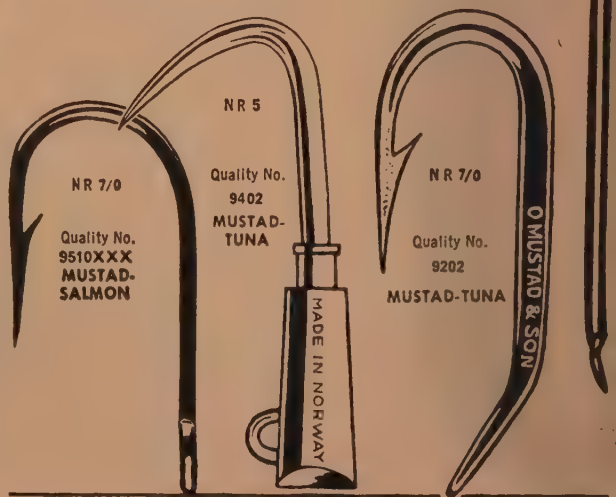
Pacific Marine Supply Co. *(Ballard Div.)*
4420 14th N.W. Seattle 7

MUSTAD
Key Brand FISH HOOKS

offer every fisherman a sound investment in long, lasting service and low upkeep.

O. MUSTAD & SON
Manufacturers
OSLO *Established 1832* NORWAY
Sales Agent
H. L. Bowlds & Son
2345 W. 3rd St., Los Angeles 57
17070 Hamlin Road, Seattle 55





Commission Charts Changes in Course For Pacific Halibut Fishery in 1961

● Some sharp drifts from the traditional are manifest in the North Pacific halibut fishing regulations recommended for 1961 by the International Pacific Halibut Fisheries Commission to the governments of the United States and Canada.

This as a result of the meeting of the commission with its conference board and advisors at Prince Rupert, B. C., in February—the first annual meeting of the commission ever held except at its Seattle headquarters.

Notable changes include:

1. Division of Area 3B into North and South sections, respectively north and south of the Alaska Peninsula and Aleutian Chain.

2. Different seasons for each, 3B-North starting April 10 and 3B-South April 25. Closure in each area will be October 1 (instead of October 15, as in 1960), or the closing date for Area 3A, whichever is later. Neither of these areas carries a quota, although the industry conference board recommended that one be imposed.

3. Second seasons are eliminated; but this is compensated for in large degree by the fact that the Area 2 quota is raised to 28,000,000 lbs.; and that in Area 3A to 33,000,000 lbs.

In spite of the increased quotas in Areas 2 and 3A, there is no assurance that the catch will be increased. This because the second seasons are eliminated; and because the "bonus season" in Area 3B is reduced in length by at least 15 days, and more than that in the South Subsection.

● In providing the April 10 start in the Bering Sea subsection of Area 3B, and April 25 south of the Peninsula, the commission renewed its production premium to encourage the fleet to fish above the Chain and thus contribute fishery data in an area currently being trawled heavily by Japanese and Soviet bottom-fishing fleets.

The commission showed a generous side in fixing the 3-million-pound-increase for Area 3A. Its staff recommended a 2-million-pound rise, and the industry conference board concurred — but the commission added another million for good measure.

Dates of season opening created controversy, basically economic in character, as the various areas and their advocates sought seasons which would permit their fleets to shift most effectively into fisheries other than halibut.

The main opening, May 10, in Areas 1A, 1B, 2 and 3A was something of a compromise. The conference board favored a May 15 opening, with Juneau and Petersburg contending for an earlier date. The commission subsequently set May 10.

● Official condensation of the halibut area boundaries, and the rules applicable for 1961 are:

1. Area 1A, south of Heceta Head, Ore.; Area 1B, Hecta Head to Willapa Harbor; Area 2, Willapa Harbor to Cape Spencer, Alaska; Area 3A, Cape Spencer to Shumagin Islands; Area 3B-South, west of Area 3A, not including Bering Sea; Area 3B-North, Bering Sea.

2. That the opening date for halibut fishing in all areas except Areas 3B South and 3B North shall be at 6:00 a. m., May 10.

3. That the opening date for halibut fishing in Area 3B North shall be at 6:00 a. m., April 10.

4. That the opening date for halibut fishing in Area 3B South shall be at 6:00 a. m., April 25.

5. That in Area 1A there shall be one fishing season, without catch limit, extending from 6:00 a. m., May 10 to 6:00 a. m., October 1 or to the closure of Area 3A, whichever is later.

6. That in Area 1B there shall be one fishing season, identical in duration to that in Area 2, and without catch limit.

7. That in Area 2 there shall be one fishing season, with a catch limit of 28,000,000 pounds, commencing on May 10 and terminating at time of attainment of the catch limit.

8. That in Area 3A there shall be one fishing season, with a catch limit of 33,000,000 pounds, commencing on May 10 and terminating at the time of attainment of the catch limit.

9. That in Area 3B South there shall be one fishing season, without catch limit, extending from April 25 to October 1 or to the closure of Area 3A, whichever is the later.

10. That in Area 3B North there shall be one fishing season without catch limit, extending from April 10 to October 1 or to the closure of Area 3A, whichever is later.

11. No areas shall be closed to halibut fishing that hitherto were referred to as nursery areas.

● The full commission attended the Prince Rupert meeting, at which Andrew W. Anderson of the United States was chairman. Other commissioners are: Dr. William Sprules, who will be chairman in 1961; Harold Helland and Richard Nelson, for Canada. For the United States, beside Mr. Anderson, Capt. Mattias Madsen and William A. Bates. Harry A. Dunlop is director and F. Heward Bell assistant director.

The commission's 1962 meeting will be held in Seattle, commencing January 16.

"Cobb's Surface-to-Midwater Trawl Due for Diver Scrutiny

● Function of refinements and experiments in trawl fishing gear will be scrutinized during the spring operations of the *John N. Cobb,* USBCF experimental and exploratory fishing vessel, according to Dayton L. Alverson, director of the Bureau's Exploratory Fishing and Gear Research Base at Seattle.

She will operate for two months at sea off Cape Flattery and in the Strait of Georgia, and will be accompanied by technologists from the Washington State Department of Fisheries as well as by diving specialists from the U. S. Navy.

The primary objective of the entire cruise is the development of a single-vessel pelagic trawl which can be operated either at the surface or on midwater horizons.

In addition to this basic experimentation the *Cobb's* company will study effectiveness of newly designed hydrofoil doors to determine their effectiveness in opening a large, small-mesh midwater herring trawl.

Another problem will seek to determine the relationship of the trawl net opening to the amount of hang-in of meshes attached to the rib lines.

Make more sets, catch more fish with . . .

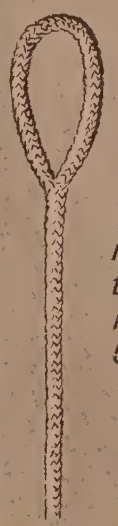
SAMSON 2-in-1

Best rope ever engineered for fishing

Double-Braided **ROPE**

* Trade Mark

Safer! Really 2 ropes in 1



You can make this splice in less than 5 minutes!

SAMSON 2-in-1 Braided Rope is designed *by* fishermen to make more money *for* fishermen! 2-in-1 is more stretch-resistant than any other rope. It's engineered to give you the exact degree of strength you want for specific jobs. It splices easy and fast. It is the most flexible rope ever made. Handles easier, grips winches tighter, runs free, won't jam blocks — resists kinking — it has no built-in twist. You get CONTROLLED stretch, too.

Here's why SAMSON 2-in-1 is so versatile

Only SAMSON is made with 2 different ropes . . . a *cover* and *center* rope. This means SAMSON 2-in-1 Braided Ropes are engineered for shock absorbency where needed . . . *stretch-free* qualities where needed. In other words, SAMSON has the engineering leeway to give you the rope you need for specific jobs. And SAMSON 2-in-1 Braided Rope is the most economical rope you can buy!

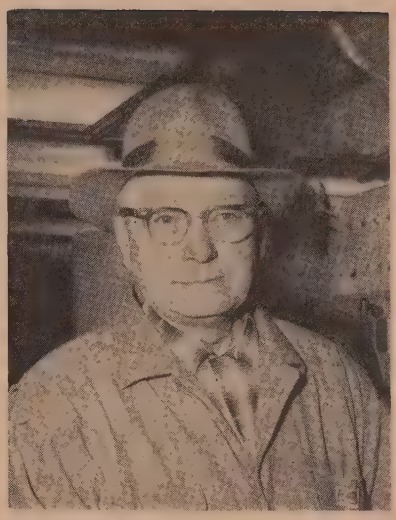
Don't buy any rope until you compare Samson 2-in-1 Braided Rope!

SAMSON CORDAGE CORP. *1215 Commercial St.,* **BELLINGHAM, WASH.**

Look to Samson for ropes engineered for fishermen

PURSELINES • SEINE NET LINES • GILLNET CORKLINES • LEAD-CORE LEADLINES • RIGGING LINES • CRABLINES • TWINE

Coolidge, pictured on her trials, turned in 10.375 knots under the thrust of her new Allis-Chalmers 230-hp. diesel.



Ivar Hille, skipper of **Coolidge,** at the wheel of the veteran halibut boat on her trial run with her new Allis-Chalmers diesel.

Veteran Halibut Boat "Coolidge" Is Re-Powered

One of the Seattle halibut vessels which has stood in the front rank of producers for more than 30 years—the *Coolidge*—will keep out in front now with her new diesel, a 230-hp. Allis-Chalmers, which replaces a 150-hp. diesel which has served long and well.

Coolidge is owned by Capt. Ivar Hille and Ludvig Akslen. She was built in 1928 by Ole Moberg, Seattle, and is 62′ overall with beam of 15′ 8″ and depth of 7′ 4″.

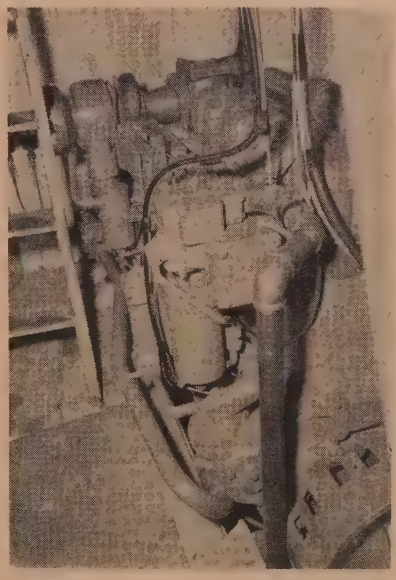
The new diesel was supplied by the Ballard Division of Pacific Marine Supply Co., which reports its technical details thus: Model 21000, 6-cyl., rated 230-hp. at 1,800 rpm.; equipped with Model HYC-EC 7700 hydraulic reverse and reduction gear at 3.88 to 1. Forward power take-off is a Model CL-110 Twin-Disc. Mathers engine and clutch controls are provided.

The Lister auxiliary diesel, 8-hp., installed two years ago for battery charging, has done that duty well and is being retained.

On her Feb. 14 trial trip with her new diesel, *Coolidge* logged 10.375 knots over the Lake Washington measured mile.

Guests on the trip included Nels Stangvik and Gus Dahl, engineers, who are partners with Capt. Paul Stamnes in the 68′ halibuter *Tongass,* which is being re-powered with an Allis-Chalmers, also purchased from PMS-Ballard Division. It is a Model DAMR-1125, rated 190-hp. at 1,600 rpm., with Capitol 3.88 to 1 reduction and reverse gear and Twin-Disc power take-off.

Coolidge's instrumentation includes a 250-fathom Fathometer, Apelco Model DFR-8 direction finder, and an Intervox radiotelephone.



Compact Power is evident in the **Coolidge's** Allis-Chalmers diesel, which generates 230 hp., while taking up on the small space shown here.

Pacific Coast Fisheries Loans Are Announced

Federal Fisheries Loans concluded during the last quarter of 1960 for Pacific Coast borrowers are announced by the Department of the Interior to include:

California: Caribe Fishing Co., Inc., San Diego, $125,000 and Nick Mosich, et al, San Diego, $125,000.

Pacific Northwest Area: Ivar Angell, et al, Bellingham, Wash., $25,000; William Brun, Port Angeles, Wash., $5,830; John W. and Julia A. Clausen, North Bend, Ore., $5,000; William F. O'Meara, Chinook, Wash., $1,300; and Western Ace Company, Inc., Tacoma, Wash., $80,000.

Alaska: Eugene Browning, Homer, $4,500; Santiago M. Cesar, Juneau, $8,500; Lynn Crosby, Elfin Cove, $3,200; Clare Hiner, Seldovia, $7,900; Charles McLeod, Juneau, $5,000; Clarence Moy, Pelican, $15,000; Jerry Nielsen, Wrangell, $4,000; Margarete von Scheele, Kodiak, $6,500; and Fred Torsen, Ouzinkie, $4,800.

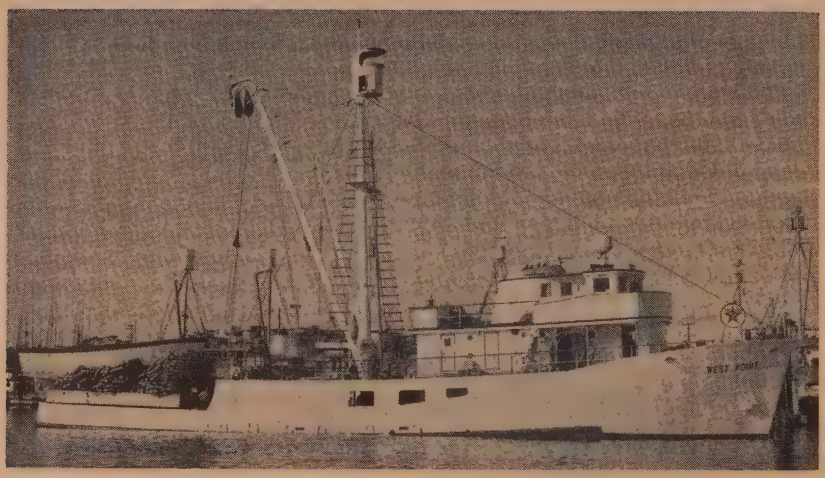
Japan to Gather Tuna Fishing Data by Areas

Effective with April, 1961, the Statistics and Survey Division of Japan's Ministry of Agriculture and Forestry will collect tuna catch data by area of fishing, reporting the statistics monthly. Hitherto the statistics have been kept only on the basis of catch by type of gear and the prefecture in Japan where the landing was made.

Area statistics on tuna fishing were originally planned by the Fishery Agency in 1958, and now are finally being put into effect.

Japanese Fish Giants Entering Fur Culture

As a means of diversification, as well as providing an outlet for some of their fresh fish by-products, such fishing firms in Japan as Taiyo Gyogyo K.K., Nichiro Gyogyo K.K., Nitto Gyogyo K.K. (a whaling corporation), and Hokkaido Gyogyo Kosha have recently embarked upon mink culture.



Down to her horseshoe, the converted seiner-from-clipper **West Point** rests at a California tuna dock after her seventh trip with her wells coated with Navicote new epoxy paint.

Cargo Well Paint Job Lasts for Seven Trips

Optimistic feeling that an answer has been found for the paint problem of steel fish holds on tuna boats was sensed in February following a report by Carl Hanken of San Diego, managing owner of the 103.0' by 26.6' by 11.3' tuna clipper *West Point*, of his 12-month test of Navicote epoxy fuel and bait tank coating, manufactured by Hart and Burns Company at Riverside, Calif.

Capt. Hanken's report was made following seven trips after the Navicote Epoxy was applied to a steel well on the *West Point* in January, 1960.

"Most paint looks good for a trip or two but then it starts to rust through or peel," Capt. Hanken said, "but we have now made seven trips and the Navicote paint looks good and is easy to clean. It looks like and I hope it is the answer to the paint for steel wells on tuna boats."

Dave Carsten, manager of Harbor Boat & Yacht Co., San Diego, which made the 3-coat application, confirmed the report.

"This Navicote Epoxy is real tough —you can hit it or pound it and it doesn't chip," Carsten said. He explained that the application included a buff primer, a second coat of pink and a third coat of light yellow. The total dry film thickness is approximately eight mills.

Colman W. Clarke, Hart and Burns sales manager, said the finish has been in use in other marine services for the past eight years, although the *West Point* test is the first extended use of the product for steel fish holds.

Mr. Clarke said a similar finish for exteriors of steel commercial craft has also been introduced on the market and is proving to be very satisfactory.

Charles P. Domm, Southern California sales rep for Hart and Burns, arranged the *West Point* test. He said interest is running high in the "exceptional results" and that an effort is being made to arrange a public inspection of the *West Point* when it returns to San Diego soon from its 8th trip since the finish was applied in January 1960.

Navicote distributor Nuttall-Styris Co., 825 Columbia, San Diego, supplied the paint for the test. Industrial Paint Co., 1342 N. Avalon Blvd., Wilmington, is also a Navicote distributor on the Southern Pacific coast.

Skippers' Names Mispelled

Names of two leading tuna seiner skippers in Southern California were misspelled in typographical errors in the advertisement of the Harbor Boat and Yacht Co., San Diego, published in the 1961 *Pacific Fisherman International Yearbook*.

The men, whose names should have been spelled as follows, were: Capt. Carl Hanken of the *West Point;* and Capt. Fifi Parmigiano of the *Mary Lou*.

Specialized Instruments Installed on Vessels

Echo sounders and sonar instruments of the specialized Simrad type developed in Norway are being installed this spring on a number of widely known Pacific Coast vessels, according to S. O. "Ted" Jules, sales-manager of Viking Equipment Co., Seattle.

Partial list of installations made on vessels from San Diego to Alaska, and variously involving sonar as well as recording type echo sounders, includes:

Nina B., Capt. Chris Brugger, Seattle; *Constitution,* Capt. Ole Birkevold, Seattle; *Admiral King,* Capt. Byron Anderson, Eureka; *Sea Pride,* Star-Kist Foods, Inc., Terminal Island; *West Point,* Capt. Carl Hanken, San Diego; *N. B. Scofield,* California Department of Fish and Game.

★ SELLING & BUYING ★

12¢ a word per time, $4.00 minimum. (For box numbers addressed to PFN, add $1.50.) Business card display—$29.00 per column in. per insertion, with lower rates on contract basis. Mail all copy to PACIFIC FISHERMAN'S NEWS, 71 Columbia St., Seattle 4, Washington.

FOR SALE: Boat "Sea Pal", 32x10 Kettenburg 4-51 G. M. Diesel, Radio phone, Freeman pilot, Net Pulley, Refrigerated 6-ton Hold. Ideal for trolling and net fishing. Contact Oscar Ness, 304 W. 4th St., San Pedro, California. Phone TE 3-3479.

COMMERCIAL FISHING BOATS

Refrigerated Northern Albacore Trollers, Salmon & Crab Boats, Seiners, Draggers, Monterey Clippers, $1,000 & Up. Now off-season moored ready for inspection. WOODWARD BROKERAGE, Moss Landing, Calif. NEwton 3-2620.

WANTED: Gill nets to hang. Eleven years experience. Write Vi Mason, Friday Harbor, Washington, or call DRexel 8-2602.

COMMERCIAL FISHERMEN
in Mexican-Central American Waters
PACIFIC TOWBOAT & SALVAGE CO.
Offers Standby Salvage and Towing Service
Pier "D" Berth 35 Long Beach HE 2-6487
Long Beach 2, Calif. Cable Address: PACTOW
"KANAK"—WA 6710

Congressional Groups Pled Relief for U. S. Fishermen

● Promise of effective effort through administrative and legislative action to secure relief for American fishermen from the pressures of imports and competition of their traditional fishing grounds was made by Washington and Alaska congressional delegations at a February meeting presided over by Senator Warren G. Magnuson.

The pledge came after a "briefing" given Senators Magnuson, Henry M. Jackson, Ernest Greuning and E. L. Bob Bartlett, both D., Alaska; Frank Church, D., Idaho; and Congresswoman Julia Butler Hansen and Congressman Don Magnuson, both D., Wash.; and Thor Tollefson and Tom Pelly, both R., Wash., by George Johansen of Alaska Fisherman's Union and Don Haak of Seafarer's International Union.

Senator Magnuson said both he and Senator Jackson have talked with "officials in the Kennedy Administration" presenting the "strong case for administrative action which can help our fishermen regain a portion of the markets they once held."

Seriousness of the "flood of imported fish and fishery products" is indicated, Mr. Johansen told the Congressional group, by the fact that "the United States imported more than one billion pounds of fish and fishery products valued at $366 million in 1959 and exported only 80 million pounds valued at $44 million."

"The disparity between imports and exports has constantly worsened since 1956," Mr. Johansen maintained.

Fishermen's Co-Operative Assn., organization of boat owners based in San Pedro, recently elected new officers and directors for the Association's 1961 year. The new president is Andrew Tipich of the **San Pedro Boy** (seated, second from left). In the picture are, standing: Directors Anthony DiLeva, **San Antonio IV;** John Resic, **JoAnn;** Isadore Califano, **New San Antonio;** Vice-President Libby DiBernardo, **Santa Maria.** Seated, Philip Felando, since replaced by director John Grgas; President Tipich; director Tony Barcot, **Coral Sea;** and secretary-treasurer John Evich, **Cape Cleare.**

HI-TEX ENAMEL... *best by any chart!*

Fishermen and other work boat operators like Hi-Tex best. They prefer it because it resists chipping, cracking, the bite of salt spray and all the other hardships of marine use. And . . . equally important . . . it stays brighter after two years than many enamels after one! In white, or 20 brilliant colors, there's real economy in high quality Hi-Tex. Ask for it at your dealers today.

Triple "C" Products

AMERICAN MARINE PAINT COMPANY

Home Office: 311 California Street, San Francisco

QUALITY PAINTS SINCE 1903

This Trademark

backed by over 100 years of serving the fishing industry . . .

means you've got the very finest nylon twines and maitre cords for fishing operations.

Brownell Nylon Seine Twines, Maitre Cords and Ropes are made especially for you from high tenacity 100% DuPont Nylon yarns. But quality yarns is just the beginning of the Brownell Story. For more efficient performance, all our Nylons are engineered for the specific purposes they are to be used for. Our rigid factory specifications on all our Nylons call for the exact twist counts to assure you the maximum strength plus the maximum yardage. And all our Nylons are processed to prevent excessive untwisting.

FOR YOUR CONVENIENCE

We package Brownie Seine Twines in ¼, ½, 1, or 2 pound tubes.

For your netting, specify BROWNELL—the largest and the quality manufacturer of Nylon Seine Twine and Maitre Cords . . . Make sure your netting manufacturer is using *Brownell Products!*

New and Superior!

BROWNIE WEST COAST BRAND TYPE H NYLON MENDING and HANGING TWINE

(Developed especially for West Coast Fishermen)

AVAILABLE: IN BOTH BLACK AND WHITE
IN BOTH REGULAR AND LOOSE TWIST

For additional information on Brownie Products and the name of your nearest distributor, write to—

BROWNELL & CO., INC.
MOODUS, CONNECTICUT

Autocratic Power for F & G Board Aim of Some Alaska Legislators

● Alaska's legislature to late February had before it only a limited number of bills concerned with the fisheries. While important, none of them appeared dangerous to the industry, unless perhaps the movement to give the Alaska Fish and Game Board virtually autocratic powers should be thus classified.

There appears to be a party in the legislature, and in the lobby, which seeks to place in the hands of the board much of the authority in Fish and Game matters now entrusted to the Governor and the Commissioner. Under the principal proposal being advanced, the Commission would appoint the Commissioner. As it is now, the Governor makes the selection from among five nominees submitted by the Commission.

Again, the Commission would be given full authority to review and authorize both the program and budget prepared by the Commissioner.

Wallis S. George, left, president of the Juneau Cold Storage Co., and **William Smith,** Alaska shrimp canner, on the dock at the Juneau Cold Storage, where Mr. Smith in February brought his second shrimp cannery into operation.

Overall Boat Length Proposal

● Representative John Longworth of Petersburg withdrew his 58′ overall boat length limit bill, which would have restricted to 58′ the overall length of seiners in Southeast Alaska. This was subsequently amended to include Prince William Sound. Withdrawal came as result of an attorney-general's opinion that the law could not be made regional in application, but would have to extend to the entire territory. At time of writing, Mr. Longworth was planning to introduce a resolution calling upon the Board of Fish and Game by regulation to fix a maximum overall length of 58′ for seiners in all cases where human safety and the needs of conservation did not otherwise require.

Purpose of the proposals of course were to exclude from Alaska overlength vessels whose hulls had been modified to evade the "Alaska limit" specifications of 50′ between perpendiculars.

Encouraging Employment of Residents

● Tax inducement to encourage salmon canning companies to use resident Alaskans in plants and in fishing operations was an interesting provision of a Senate bill introduced by Senators A. A. Owen, Uganik; Elton Engstrom, Petersburg; George McNabb; Jack Weise; and Eben Hopson, Point Barrow. This measure would grant canning companies rebates of 10% of the 6% raw fish purchase tax if (1) the cannery crew consisted of at least 80% of Alaskans who had been residents of the state for at least six months preceding the opening of the canning season; and (2) also 10% if the fishermen with whom the company had working agreements during the season were residents with similar qualifications.

Opinion among canners generally seemed to favor the proposal as a realistic means of encouraging employment of residents.

Special Fishing Rights Unpopular

● The "Salmon Farm" bill, which would have conferred special rights of fishery upon concerns maintaining private hatcheries, received a cool reception in Juneau.

Exclusive right of fishery was the basic reason for opposition to the salmon traps, and with that fight still simmering in the courts the state was showing no disposition to set-up a system of special fishery rights based on hatcheries and fish farms instead of traps.

In-Person License Applications

● The "Airlines Bill," jokingly so-called, raised its head again in Juneau in a measure which would require that all applicants for fishing licenses in Alaska should apply *in person* to the Commissioner of Fish and Game, or his agent, in the state between Jan. 1 and April 15 of the year in which the license would be valid. This was a modification of the measure fought-over in 1960, which would have required the application to be made in person in the area in which it would be used. The 1961 proposal would permit non-residents to secure a license in Ketchikan, for example.

While the measure is jokingly called the "Airlines Benefit Bill," it is more thoughtfully regarded as designed to apply just one more pound of leverage to influence fishermen to maintain their residence in Alaska.

Protection for Shellfish Industry

● Protection of Alaska's shellfish industry from possible imports of low quality or of questionable origin is the purpose of Alaska Senate Bill 89, by Senators A. A. Owen and Elton Engstrom, which would forbid shipping into Alaska, or sale there, of shellfish other than of Alaska origin unless the shipper is registered with the Alaska Department of Health and Welfare; and unless the shellfish comes from an approved source of supply. Moreover, it is illegal to have or sell in Alaska shellfish supplied by an excluded source.

LOOK FOR THIS TRADE MARK ON NETTING

- *Gold Medal*
- *Barbour's*
- *Tanglefin*
- *Adams*
- *Pauls*
- *Nyak*
- *LTCo. Knotless*
- *Netset*
- *Ark Floats*

This LTCo. Diamond mark is your assurance that you are buying netting from the manufacturer with more experience, more know-how, and more customer acceptance than anyone in the netting business!

Your LTCo. Distributor stocks, sells, and services you with the BEST netting you can use—

LINEN THREAD NETTINGS

If you don't use LTCo. nettings, you aren't using the best.

THE LINEN THREAD CO., INC.

BLUE MOUNTAIN, ALABAMA

Protect your product — Buy Products of American Workers

Smith Shrimp Cannery Starts at Juneau

William Smith started-up a new shrimp cannery at Juneau the last week in February and expects to keep it running steadily through the spring months. The plant is located in the Juneau Cold Storage Co. building, and was originally equipped a year ago; but was only in operation a few days before the end of the season.

The William Smith Co., which operates a shrimp cannery at Wrangell, and on occasion also cans crabs at Tenakee, west of Juneau, is among the firms which pioneered shrimp *canning* in Southeast Alaska, and Mr. Smith is now extending coverage into the northern area, where shrimping has been productive in the areas of Lynn Canal and upper Chatham Strait.

The plant is equipped with one Peelers machine. It also has a King crab blowing table from which King crab meat can be packed if desirable.

Linen Thread Co. Advances Two of Its Executives

The Linen Thread Co., Inc., has announced appointment of P. H. Forte as Corporate Marketing Manager in charge of all sales and merchandising functions.

Mr. Forte was appointed a vice president of the company a year ago, at the time he joined the Linen Thread organization, a division of Indian Head Mills, Inc. He was previously executive vice president of the Textile Thread Company of Watertown, Mass. Textile Thread was acquired by Linen Thread in December, 1959.

It was also announced that Robert Young, formerly manager of the company's netting plant, has been appointed manager of all corporate manufacturing activities.

Fish Man Named Secy. of Sanitation Group

Bart Ghio, secretary of the Southern California Fisheries Assn., has been re-elected secretary of the Food Sanitation Advisory Committee of the Los Angeles City Health Department. His election was seen as a sign of recognition of the importance of the fresh and frozen food industry in the community.

The Food Sanitation Advisory Committee works closely with City, and sometimes with State, authorities on laws and rules regulating the handling of all kinds of foods. Mr. Ghio's part in the leadership of the committee gives fish wholesalers and brokers a strong voice in deciding matters affecting their business.

Norman Holm handles the hoist controls and watches carefully as a load of Southeast Alaska King crab is discharged at Juneau from the fishing vessel **Neptune,** which initiated this new fishery.

King Crab Fishing Comes to SE Alaska

● King crab fishing came to Southeast Alaska in a commercial way the middle of February when Norman Holm of Juneau initiated operations with two boats fishing, and with an air-borne trade in fresh whole crabs, legs and sections, and picked crabmeat as his primary objective.

How big will the business be? No one now knows, for the extent of the Southeast Alaska King crab resources are known to none. Shrimp trawlers and halibut fishermen for years have reported getting them in varying quantities, which have been no more than sufficient for the personal use of the fishermen, with now and then enough left for local use, principally at Petersburg.

Mr. Holm has established an operation at the Juneau Cold Storage, where there are facilities for discharging, cooking, chilling, shaking and storing the crabs pending shipment; and where there is a shellfish cannery which could be employed for canning if the supply *should happen* to exceed the fresh demand.

● Boats employed are two cannery tenders, each equipped with steel-lined holds with sea water circulation. They are the *Neptune* and *Rio de Oro.*

While they had made some preliminary landings of smaller quantities, it was not until the Neptune reached Juneau February 14 that a substantial delivery was made. This consisted of about 1,500 King crab, together with about 500 Tanner crab. This latter variety was brought in for experiment in an effort to find a means by which the Tanner population could be utilized economically.

● Being a virgin population—certainly so far as commercial exploitation is concerned—the Southeast Alaska King crabs were quite large, averaging approximately 10 lbs. each. They were taken in standard King crab pots of the circular type generally used to Westward, rather than the rectangular style favored at Kodiak.

First landings from the Holm operation were snapped-up quickly in the local Juneau markets, where almost all of the stores and several of the restaurants were offering them regularly. Substantial quantities of fresh King crabs and sections were also being shipped to the Seattle market.

● This matter of utilizing Tanner crab offers a challenge to the entire Alaska crab industry, and Mr. Holm is not the only one to take it up.

It is understood that Dick Sutterlin, who is a well-known shrimp and crab canning operator in central Alaska, is undertaking to utilize Tanner crabs in a test operation at Seldovia.

The Tanners are taken along with the King crabs in the pots, but at present are merely returned to the water. Thus any economic use which could be made of them would convert them into a valuable by-product for the fisherman as well as the packer.

Calpak Starts Building Its Puerto Rico Cannery

Del Monte de Puerto Rico, Inc., a wholly-owned subsidiary of California Packing Corporation, started work this winter on the construction of a new tuna cannery at Mayaguez, Puerto Rico. The plant is expected to be ready for operation in 1962.

Del Monte de Puerto Rico, Inc., was incorporated specially to operate the new cannery, which will be located at the west end of the island, immediately adjacent to the plant of Star-Kist Caribe, Inc., fully described in the October, 1960, issue of *Pacific Fisherman.*

U.S. Fishing in Fuca Strait Encouraged by Uniform Season

● Development of an American gillnet and purse seine fishing operation for Sockeye and Pink salmon in the Strait of Juan de Fuca during the period when this portion of the international salmon convention waters is open to fishing will be encouraged by an amended regulation recommended by the International Pacific Salmon Fisheries Commission for the 1961 season.

Such fishing of course cannot be pursued in the three-mile refuge belt along the north coast of the Olympic Peninsula, but the straits waters will be open to American fishing whenever the inner area is open from July 16 to Sept. 24.

This was once of the notable changes announced in the regulations as originally proposed. It was recommended to the commission by John N. Plancich, advisory committee member representing the American canners. Other industry advisors are said to have supported the proposal, but Howard Gray, representing the sport fishermen, is reported to have opposed it.

Trolling Restriction Is Light

● Another change affecting the 1961 Straits fishing during the Pink season calls for closure of commercial trolling in the straits two days a week, from midnight Friday to midnight the following Sunday between July 16 and September 24.

The commission pointed out in its announcement of the recommendation that: "The restriction was not recommended for the high seas area of convention waters pending a detailed study to determine the most practical means of providing for the requirements of the conservation of Pink salmon where they are subject to a troll fishery."

In other words, it would appear that the commission plans to study practical means of restricting the Pink salmon troll fishery to the same extent net fishing for this species is restricted without impairing the trollers' economic return from other species fished on the high seas.

"Blow-Back" Line Compromised

● Compromise was prescribed by the commission in the controversy related to a closed area in the vicinity of Point Roberts to prevent "blow-back" salmon from being carried by natural conditions into waters open to fishing, and thus being subjected to a second fishery which might endanger escapement which had been relied upon in regulating the fishery.

The drastic limitation of a line due south from East Point Roberts will be in effect only from Sept. 3 to 23, the period of greatest blow-back danger in this area; and then the line will be shifted for the remainder of the season, when it will run southwest from Iwerson Dock on Point Roberts to the Active Pass light.

● Controversy between gillnetters and purse seiners as to which should start fishing first was resolved for 1961 by a provision that from June 24 to August 5 the gillnets should start fishing Sunday evening and the seines and reefnets Monday morning; and that After August 6 the seines should start first.

Gear Shifting Discouraged

● Anticipating a pile-up of gear for the Fraser River Sockeye and Pink salmon seasons of 1961, the commission was firm in its restrictions of fishing times and periods of control, while promising to consider the matter from time to time during the season in the light of apparent abundance of the run, the amount of gear marshalled, and the requirements of escapement for conservation purposes.

In Canadian waters of the Strait of Juan de Fuca the seines will start fishing first on Monday morning, with the gillnets operating that night. This is regarded as almost essential to proper management of the fishery under conditions imposed by the short one- and two-day weekly fishing period anticipated.

The arrangement also will serve to deter the movement of Straits boats to the Fraser River fishing area, thus

FISHERMEN
NOW USING
Sea King
Filament NYLON Netting
AGREE IT'S THE BEST
IN THE BUSINESS —
You get important advantages in Sea King Filament NYLON Netting — the finest netting ever developed — because of an exclusive "liquiplating" process which makes these advantages possible
Sea King Filament NYLON Netting – nYCOT Netting
Sea King Cotton Netting
The FISH NET & TWINE CO.
Menominee, Michigan, U. S. A.
FNT
Manufacturing Nets Over 100 Years

gaining an extra day of fishing, while impairing the calculations of fishing intensity on which the regulations are based in the interest of escapement and conservation.

Use of large-mesh Spring salmon nets in the Fraser River itself under regulation by the Canadian Department of Fisheries will be permitted by the commission during the month of September.

● Following the suggestion of several of its advisory committee members, the commission expects to conduct test fishing operations throughout the fishing season to provide information as to escapement and the suitability of the regulations at the moment existing.

Such fishing at the entrance to the Strait was strongly recommended by some advisors as a means of determining the numbers of salmon arriving in convention waters during periods closed to commercial fishing.

Scheerer Joins Mormac, Naknek Salmon Canner

Eugene C. Scheerer, proprietor of the Scheerer Canning Co., Everett, Wash., has acquired an interest in the Mormac Corporation, which in 1960 established a small cannery at the mouth of Munson Creek, just north of the confluence of the Naknek River with Bristol Bay.

He is understood to be preparing to move his Rooney quarter-flat filler to Naknek, with the intention of putting up a substantial pack of quarters as well as 4-lb. cans.

The cannery was installed by Mr. Scheerer in 1960, and was described on Page 34, *Pacific Fisherman* for October, 1960. At that time all filling was done by hand, and closing was handled by a Rooney adjustable semi-automatic seamer.

Under the arrangement for 1961, the Mormac pack is expected to be marketed through Emard Packing Co.

Late Winter Chinook Fishing Disappoints

Columbia River gillnetters who ventured out for the late-winter salmon season February 15 and thereafter were disappointed by results, although the price was high. High, muddy water as result of the extremely heavy rains immediately preceding the opening was blamed by fishermen for some of their ill luck, but the more pessimistic just felt the fish weren't there.

Market News Service reports for the first three days of fishing indicated Astoria area landings of about 13,000 lbs. of Chinook and 10,000 lbs. of Steelhead.

New gillnet float by B.F.Goodrich reinforced with tough grommets

If you've ever had your floats ripped apart by the weight of gillnets — here's news. This new surface float, developed by B.F.Goodrich, is reinforced at both ends with rigid plastic collars—called "grommets"—which take the wear, the weight, the rub. This tear-resistant reinforcement makes the float virtually indestructible.

The float itself is made of extra-tough unicellular plastic, is lustrous white for maximum visibility, and has all the other advantages of the famous BFG "Spongex" seine float. It's light, permanently buoyant, dries quickly, won't break or crumble. It will not absorb water, oil or gasoline, never gets waterlogged.

These new floats have a 16-ounce buoyancy — are 5⅛"-5⅝" long, 3⅛"-3½" in diameter, and have a 9/16"-1 1/16" inside grommet diameter.

Reduce your costs by asking for long-lasting B.F.Goodrich gillnet and seine floats. If your supplier doesn't have them in stock, ask him to write *The B.F.Goodrich Company, 145 Derby Place, Shelton, Connecticut.*

MARINE PRODUCTS BY B.F.Goodrich

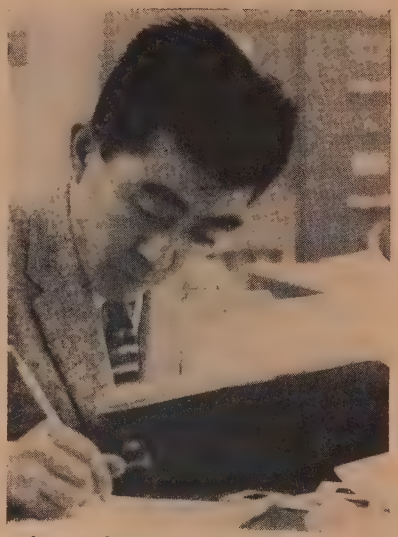
Virgin Adak King Crab Fishery Takes Courage

● Wakefield King crab operations at Adak, away out to Westward in the Aleutians, almost in the shadow of the Date Line, continued encouraging through the month of February.

However, Lowell Wakefield, president of Wakefield Fisheries, feels that more than one season will be needed to demonstrate the size of the resource. A virgin area may yield abundantly at first, without the population being of any great size.

The costs of mounting and maintaining an operation at this extreme westerly position, beyond that at which Americans have ever before undertaken an in-shore fishery, impose heavy risk. Although there is a naval installation at Adak, it is necessary for the vessels maintaining the fishery to run three days to Dutch Harbor to re-fuel.

The Wakefield venture involves the freezing and packing vessel *Reefer King*, with a complement of 32 men; the pot fishing vessels *Foremost, Shelikof, Totem* and *Jeanette F.*, each with four men.



Tak Miyahara, U. S. Bureau of Commercial Fisheries biologist heading North Pacific King crab researches.

● Initial fishing was all in the bays around Adak, but these are deep, and operations generally were at a depth of about 120 fathoms. All grounds prospected thus far are within territorial waters, and it is anticipated that foreign operators would find exploitation of the fishery impracticable, as the shelf around the island is very narrow, falling off steeply to unfishable depths.

It is interesting that the average size of the crabs taken in this virgin fishery is not exceptionally large. Average weight is 9.7 lbs., actually less than that of the crabs taken in the vicinity of Raspberry Island, the Wakefield headquarters, which has been under fishery longer than any other King crab ground in Alaska.

Nor do the Adak crabs give evidence of being old. In general, the quality has been good, with the shells "bright and new", as the reports come in from the vessels, indicating frequent moulting.

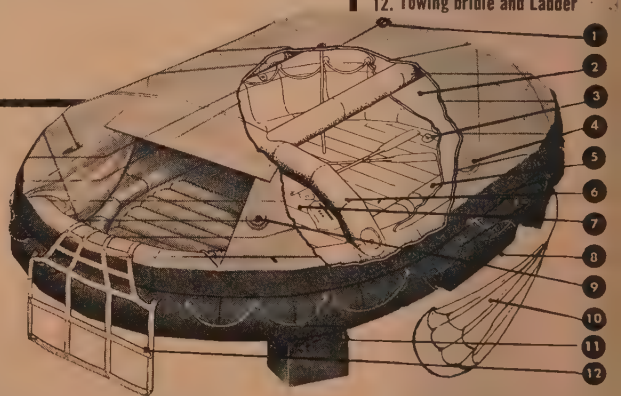
In Juneau the middle of February Mr. Wakefield thus appraised the Adak area, on the basis of only a little more than a month of fishing experience: perhaps capable of supporting a four-boat seasonal fishery on a sustained yield basis; and, *very roughly*, with productive possibility—as nearly as it can now be visioned—of the 3 to 4 million pounds of live crabs.

Tak Miyahara, King crab specialist

ELLIOT inflatable liferafts save lives

...where nothing else can!

1. Water-activated light
2. Insulating double canopy
3. Safety and topping up valves
4. Rainwater catchment
5. Equipment pack
6. Auto. erecting arch tubes
7. Insulating double floor
8. Charged inflation cylinder
9. Heaving line
10. Sea anchor
11. Stabilizing water pockets
12. Towing bridle and Ladder



Elliots inflate at the pull of a cord . . . or automatically if a ship sinks . . . in about one minute. Statements by many of the 185 persons saved from drowning by Elliots show that other equipment failed or became unusable under actual emergency conditions. Without Elliots, they would have gone down with the ship.

Only Elliot gives you such assurance of unfailing operation in split-second emergencies . . . plus minimum size and weight, unequalled protection for survivors, and economy of purchase and maintenance. Send for free folder.

ELLIOT

INFLATABLE LIFERAFTS

The Elliot name and products are protected by patents and patents pending in U.S. and other countries.

U. S. COAST GUARD APPROVED IN 8 SIZES

U. S. Sales Agent: C. J. HENDRY CO., 139 Townsend St., San Francisco, California

Made by Survival Equipment Corporation, Sausalito, California

ELLIOT SALES, SERVICE, AND INSPECTION DEPOTS:

Baltimore, Md.: The R. J. Taylor Company
Boston, Mass.: Westerbeke Fishing Gear Co.
Charleston, S. C.: Southeastern Supply Co.
Galveston, Texas: Flood & Calvert
Gloucester, Mass.: Westerbeke Fishing Gear
New Orleans, La.: Neptune Supplies, Inc.
New York: New York Marine Distributing Co.
Norfolk, Va.: Paxton Co.
San Francisco, Calif.: C. J. Hendry Co.
San Pedro, Calif.: C. J. Hendry Co.
San Diego, Calif.: C. J. Hendry Co.
Seattle, Wash.: Nordby Supply Co.
Mexico City: Maquinaria Industrial & Maritime

Also at Aden, Belgium, Brazil, British Isles, Canada, Denmark, Faroe Islands, Germany, Holland, Hong Kong, New Zealand, Norway, Portugal, Sinpagore, Sweden

of the U. S. Bureau of Commercial Fisheries, accompanied the Wakefield expedition to Adak and studied the crabs from a scientific point of view for about three weeks. Glen Davenport, biologist of the Alaska Department of Fisheries, also acompanied the expedition and remained at Adak to observe the operation.

Moimoi Staff at its Long Beach, Calif., headquarters was recently increased by these two: **Enrique Lopez,** left, and **Russell Dinger,** appointed by Ben Ichiyasu, manager, to assist in handling the firm's increasing netting business.

New Faces at Momoi American Headquarters

The staff of the Momoi Co., manufacturers of fishing nets, Long Beach, Calif., recently acquired two new members: Left, Russell Dinger and Enrique Lopez. Mr. Dinger, who is handling shipping, documents and traffic for the U. S. and Canada out of the Long Beach office, is well known on the Southern California waterfronts, having served many years on the staff of W. H. Wickersham & Associates, San Pedro, and in other connections. He got his business start at the General Petroleum marine station at the Harbor, fueling fishing vessels and other craft.

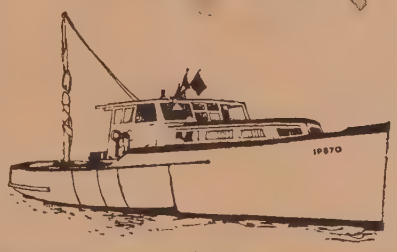
Sr. Lopez comes to the Momoi Co. and to the U. S. A. simultaneously, from Costa Rica. His business experience is almost entirely with United Fruit Co., which company he served for many years in various capacities handling commercial affairs in Spanish and English.

The Momoi Co. Long Beach office is headed by Ben Ichiyasu.

Alaska Packers Launch King Crab Canning

Alaska Packers Association entered the rapidly-growing King crab canning business in January with its plant in Kodiak, which was fitted to handle crabs as well as salmon and razor clams, its other long-established products.

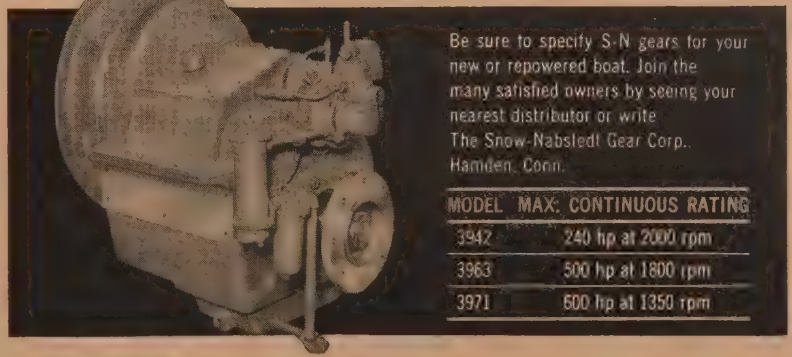
COAST TO COAST



Skipper-Owner Alger Burgess, operating line trawler **Ernie Bll out of** Portland, Maine, doesn't know of a gear better able to stand the strain of long runs in heavy seas and hours of maneuvering in and out of gear. He says, "one of the finest features of my S-N gear is its fine neutral . . . no dragging on the wheel."

Owner Felix Wiseman, Jr., of the all-steel shrimp trawler **Darcy Lyle,** powered by a Murphy ABD227, shrimping off the Mississippi claims his S-N 3:1 reduction gear has been most satisfactory. He says, "The right propeller speed means efficiency. With my S-N gear I get full speed and power continuously in forward or reverse."

D. S. Peterson, whose fleet fishes out of Fernandia Beach, Florida, writes he is pleased with the performance of his S-N reduction gears in **Sherry Ann, Orange Blossom** and **Sea Pearl.** He especially likes the cool operating clutches without disc drag.


Be sure to specify S-N gears for your new or repowered boat. Join the many satisfied owners by seeing your nearest distributor or write The Snow-Nabstedt Gear Corp., Hamden, Conn.
MODEL MAX. CONTINUOUS RATING
3942 240 hp at 2000 rpm
3963 500 hp at 1800 rpm
3971 600 hp at 1350 rpm

reverse
S-N GEARS
reduction

Best buy in dependable gears made by transmission engineers for over half a century

Only 16 inches from flange to flange but long on vital performance features

Twin Disc engineers designed the MG-508 to save space, but they didn't short-change this compact customer in the features department. It has all the job-proven advantages of its "big brother" gears—the MG-512 and the MG-521. These include:

- Fingertip hydraulic control for smooth, instantaneous response
- Continuous oil-cooling of clutches to dissipate heat and prevent plate wear
- Exclusive dry Rubber Block Drive to compensate for misalignment
- Full horsepower in continuous forward or reverse operation
- Ability to service clutches without dismantling gear from engine
- Optional trolling valve

The MG-508 is furnished with ratios of 1.47:1, 2.04:1, 2.95:1 and 3.39:1. Three optional driving rings permit replacement of older model Twin Disc gears — including the war surplus X8708 — without flywheel modification.

RECOMMENDED FOR THESE ENGINES
Allis-Chalmers 16000 • Caterpillar D318, D333, D339 • Cummins JNS, HRS, NH, NTO • Gardner 6-LX • General Motors 4-71, 6-71 • Murphy MP-CAB, MP-AAB • P & H 687C-18-M • Volvo-Penta TIMD 96 • Waukesha 135, 148 (NA)

TWIN DISC CLUTCH COMPANY, Racine, Wisconsin

TWIN DISC
Marine Gears

JFK's First Tariff Act; Does It Point Policy?

Seekers after indications as to Kennedy Administration policy saw the possibility that the President's first tariff action might prove a policy-setting decision. In office little more than a fortnight, he sided with the no-increase bloc in the Tariff Commission in rejecting duty increases on imported twines and cordage.

While noting the national problems in international payments, he wrote: "A return to protectionism is not a solution. Such a course would provoke retaliation."

It is notable that one of the prime movers in seeking the increased duties was the Plymouth Cordage Co., one of the major industries in the President's home state of Massachusetts; and that when higher tariffs on twines were first sought in 1956 the President, then a senator, was a witness on behalf of the Plymouth Cordage Co.

The Tariff Commission split its position in the cordage case, two members favoring a tariff increase, two opposing it, and two abstaining.

Big L.A. Advertisers Push Fish For Lent

A stronger-than-ever advertising push for fish during Lent is under way in Southern California, with regional and national advertisers of many food products tying their promotion in with fish.

Among the firms using the "eat fish with our product" theme this Lent are: Leslie Salt Co., Bell Brand potato chips and peanut butter, the California Wine Advisory Board, Alcoa Wrap, the Chive Growers Association of California, Lawry's famous Los Angeles restaurants and Sunkist Growers, citrus ranchers' marketing co-operative.

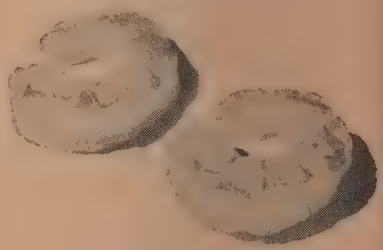
A report on the tie-ins and other promotion efforts was made to the Southern California Fisheries Association last month by Lee Pearlstein, advertising counselor.

Japanese Tuna Sales Predominantly Albacore

Albacore is far out ahead in current tuna selling in Japan for the United States market. Sale No. 2, late in January covered 250,000 cases of Albacore—in brine, of course—at a base price of $9.15.

Previous Sale 1 had involved 150,000 cases; while the two put together counted only 50,000 cases of Light-meat.

Isn't there more profit in selling shrimp...



than there is in selling shells?

The Peelers Co. specializes in automatic shrimp peelers, deveiners and graders.

® © 1954 by

THE PEELERS CO.

619 S. Peters St. • New Orleans, La.

Write, wire or phone

FOOD FISH MARKETING

Section of PACIFIC FISHERMAN —

News and Views of National Trade in Fish and Shellfish

March 1961

MAKE A NOTE TO WATCH

Machine-Filled Quarters in 1961

• Quarter-pound Red salmon, its production, machine-packing, and the problems of its distribution, seem sure to stand in new prominence in 1961.

There are many reasons for expecting this, and most of them are concerned with the development of practical filling machines capable of doing an acceptable job of packing these tiny cans at a profitable rate.

Machine filling of quarters became an accomplished, economic fact in 1960 for the first time with the Rooney machine. That it will play a larger part in 1961 cannot be doubted. Confined to about three machines on Puget Sound in 1960, machine filling of quarters already is assured for Alaska in 1961; and may be expected in British Columbia as well.

• More significant yet, Japanese companies operating salmon canneryships on the high seas will have some of them equipped for packing quarter-pound cans by machine this summer.

Hitherto the Japanese factoryships have not been able to can quarters on the high seas because of the excessive requirements of time and space and labor where hand-filling is involved. The principal market for salmon quarters — thus far — has been in the United Kingdom, Japan's best customer; and it has been necessary for Japan to meet the U.K. demand for this item with quarters packed from frozen Reds.

It is no secret that the British market generally does not care for salmon canned from frozen fish; and that some buyers there will not accept it at all.

That Japanese companies will be in position to pack quarters on some of their factoryships this year is reported to *Pacific Fisherman* by its editorial representative in Japan.

Nichiro Gyogyo K.K. has developed a successful machine through a subsidiary, and is installing the equipment on three of its salmon factoryships. Other high seas salmon operating companies are reported to have ordered machines for their vessels as well.

The machines in question were developed and are being manufactured by Nisshin Zosen-zoki K.K., an affiliate of Nichiro's headed by Yoshio Ueda. Located at Hakodate, it operates a boat-building yard and cannery machine shop.

From these facts it is apparent that Japan probably will be in position in future to offer Red salmon quarters packed from fresh salmon on the high seas.

• Already it is certain that the small cannery of the Mormac Corporation on Bristol Bay will be equipped for machine-filling quarters in 1961.

Further, it would be surprising if some Rooney quarter fillers did not appear on Cook Inlet, and possibly the Copper River.

British Columbia, with its Empire standing and a supply of quality Sockeyes, hitherto has been in favored position with respect to packing and selling this rising commodity. Initial employment of quarter-pound fillers in Canada would not be surprising this year.

• Salmon sellers are inclined to voice restrained misgivings when they weigh the evidence of growing interest in quarters in 1961.

Going into February they reported no apparent scarcity of Red quarters, and there were reports from Japan that by far the larger part of that country's 1960 pack in this size had not been sold.

The Alaska frozen Reds which were shipped from Seattle to Japan in the fall of 1960 were packed in quarters, and at last reports received by the Seattle trade had not succeeded in finding buyers.

Seattle Market

Market prices currently quoted at presstime by Pacific Northwest brokers and cannery sales department, cases of 48 tins, unless otherwise specified, good quality, as reported by the U. S. Bureau of Commercial Fisheries, Market News Service.

Items and Packages	Per Case
Puget Sound	
Sockeye, halves	$ -25
Sockeye, quarters	-15
Alaska	
Red, talls	35 -37
Red, halves	23 -25
Pink, talls	-28
Pink, halves	15 -16
Med. Red, talls	31 -32
Med. Red, halves	19 -20
Med. Red, quarters	13 -14.00
Chum, summer, tall	-25
Chum, summer, halves	13 -14
Chum, fall, 4-lbs. (12	-25
Chinook, talls	-32
Columbia River	
Blueback, halves	27
Blueback, quarters	-16.50
Chinook, fancy, halves	26 -27
Chinook, fancy, quarters	16 -16.50
Chinook, choice, halves	-19.50
Chinook, choice, quarters	-13.00
Silver, halves	-19.00
Silver, quarters	-13.25
Tuna, Northwest Pack—	
Albacore, fcy., 7 oz.	11.00-12.50
Yellowfin, s/pack, 7 oz.	-10.50
Yellowfin, chunk, 6½ oz.	9.50- 9.85
Tuna, Columbia River Pack	
Albacore, fcy, 7 oz.	14.85-15.25
Albacore, fcy., 3½ oz.	8.85- 9.15
Albacore, chunk, 6½ oz.	10.50-13.25
Albacore, chunk, 3 oz.	6.50- 8
Lightmeat, fcy., 7 oz.	14.25
Lightmeat, fcy., 3½ oz.	8.55
Lightmeat, chunk, 3½ oz.	7.50
Canned Shrimp—	
Northwest: 4½ oz. wet pack	- 7.25
Alaska: Tiny (over 17 per oz.)	- 7.25
Small (10-17 per oz.)	- 8
Medium (6-9 per oz.)	-10
Canned Crab	
Dungeness, 24, 6½ oz.	13
Dungeness, 24, 3½ oz.	- 8.25
King, fcy., 7½ oz.	-32
King, std., 24, 6½ oz.	-15
King, std., 24, 7½ oz.	-16

Southern California Receipts

	Albacore	Bluefin	Skipjack	Yellowfin	Bonito, etc.	Total
San Pedro	2,635		242	15,382	386	18,645
San Diego	1		438	2,281	...	2,720
Total 1961 through Feb. 11	2,636		680	17,663	386	21,365
Total 1960	2,993	110	5,319	11,966	17	20,405
Total 1959	1,693	88	7,624	13,307	112	22,827

Northwest Salmon Canners Re-elect All Officers

Officers of the Northwest Salmon Canners Association, an element of the Association of Pacific Fisheries, were re-elected at the annual meeting in January.

Robert F. Morgan of Western Fisheries Co. continues as president; with A. L. Rogers of Petersburg Processors, Inc., vice president; and Harold Daubenspeck of Kenai Packers, secretary-treasurer.

Trustees elected are: Jack Brennan, Haines Packing Co.; Frank Wright, Pelican Packing Co.; Jack Thompson, Keku Canning Co.; William Hingston, Washington Fish & Oyster Co.; Jack Hanover, Egegik Packing Co.; Jack Lind, Alaska Year-Round Canneries Co.; Henry Emard, Emard Packing Co.

Libby's Salmon Division Shares Branch Offices

D. H. Zeiger, manager of the Libby, McNeill & Libby Salmon Division, moved the division February 20 to its new offices in the Libby Branch Headquarters at 2709 Airport Way, Seattle.

Mailing address is P. O. Box 3887, Seattle 24, Wash.; and the telephone number is MAin 3-0863.

Since the first of the year the Libby Salmon Division has been housed temporarily in the Arctic Building, Seattle.

Former Libby property on Lake Union has been acquired by the Ward's Cove Packing Co. and Columbia River Packers Association interests, which purchased the cannery properties in 1959. The Ward's Cove, Red Salmon Canning Co., C. W. C. Packing Co., and the Seattle offices of the C.R.P.A. are now located in the former Libby Salmon headquarters buildings at 84 Hamlin Street, Seattle.

Fisheries Association's Frolic Set for June 2

The annual Country Club Day sponsored by Southern California Fisheries Assn. will be held this year on June 2, it was announced by Bart Ghio, secretary. The place will be the Hacienda Country Club, in La Habra, suburb of Los Angeles. Country Club Day is the big family social event of the year in the Southern California fisheries fraternity, with golf for the boys and other outdoor fun for the girls and kids, and a dinner-dance for the grand finale.

Henry W. Abts has been named vice president of sales for West Coast Packing Corporation, Port of Long Beach, Calif. Gilbert C. Van Camp, Jr., president of Van Camp Sea Food Company, in making the announcement said: "Mr. Abts will direct the sales operation of West Coast Packing Corporation. It is an affiliate of Van Camp Sea Food Company, which has processing facilities in Terminal Island, California; American Samoa; Manta, Ecuador and Ponce, Puerto Rico. Mr. Abts brings over 17 years of experience in the tuna industry and is a very well known figure to the grocery industry. Bud Rickert will continue with West Coast in his present capacity as national sales manager."

R. C. Swaffield Passes, Long a Tuna Lawyer

The California industry lost another of its early-day leaders when Roland G. Swaffield, formerly attorney for the French Sardine Co., precursor of Star-Kist Foods Inc., died in Inglewood, Calif., after a seven-year illness.

As legal pilot of Star-Kist, Mr. Swaffield steered the company through some dangerous shoals a generation ago. He was closely involved in the management of French Sardine, and maintained an intimate friendship with J. Bogdanovich Sr. He was the father-in-law of J. Bogdanovich, new president of Star-Kist.

Aside from his connection with the fishery industry, Mr. Swaffield was a noted attorney, practising in California for 45 years.

William Lippman Joins Frohmans of Chicago

Affiliation of William Lippman of Chicago with L. H. Frohman & Sons of Chicago was announced at the end of January by L. H. Frohman.

Mr. Lippman is one of the leading figures in fish and sea food sales in the Chicago area, with a reputation throughout the United States as an expert in the goods he sells.

With Mr. Frohman are his sons, Arthur and David. Together they have built up a remarkably effective organization, with excellent supply affiliations, which they represent in Chicago and the Midwest area. These include:

Bellanna brand halibut and salmon, packed by New England Fish Co.

Crest, Mark and *Compass* brands of green headless Mexican west coast shrimp.

Treasure Isle brand breaded and deveined shrimp.

40-*Fathom* brand fillets and breaded portions.

Ten-Knot and *Highliner* fillets packed by National Sea Products, Halifax.

Australian lobster tails.

KELLEY-CLARKE COMPANY ESTAB. 1895

• SELLING AGENTS •

CANNED SALMON

NORTHWEST TUNA

ALASKA KING CRABMEAT

DUNGENESS CRABMEAT

PACIFIC SHRIMP

KELLEY-CLARKE COMPANY
2460 6th Avenue South
SEATTLE 4, WASHINGTON
Phone: MAin 2-2582

NFI President Visits Pacific Coast Regions

Thomas D. McGinnes, president of the National Fisheries Institute, made a Western swing last month, visiting the entire Pacific Coast and meeting with regional leaders of the fisheries industries.

In Los Angeles Mr. McGinnes appeared before the Southern California Fisheries Association and spoke strongly for the national association, urging fresh-and-frozen fish men to support its nationwide activities in behalf of the industry.

In Seattle he was the guest Feb. 17 of the Pacific Northwest Fisheries Association.

Uniform Species Codes Proposed by Packers

With Jack Hanover, vice president and superintendent of Egegik Packing Co., leading the way, several Alaska salmon packers are proposing adoption by the industry of uniform species code designations to simplify handling the pack, both in the canneries and in the warehousing phase.

The idea would be to apply the uniform code designation only to the *species*, so there could be no question of confusion in the *kind* of fish contained in the cans. Thus all persons with responsibility for handling the salmon at any stage from production to the consumer could know positively the species of the contents.

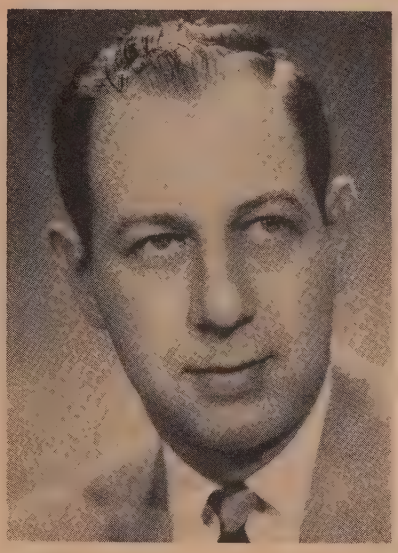
The matter is expected to be a prime topic of discussion at the Salmon Cutting report meeting this month.

Washington Razor Clam Quota Is Reduced

Because of the relatively low abundance of razor clams found in the Washington beaches by state Department of Fisheries biologists, Milo Moore, fisheries director, announced the necessity of reductions both in open area and poundage quota.

For the commercial season which opens on the Copalis Beach March 11 the quota was set at 200,000 lbs. from beach between the Copalis River and Joe Creek, just south of the town of Pacific Beach.

ROBERT L. STIX, INC.
CANNED and FROZEN FISH
Ask Us About — New Season
Australian and New Zealand Lobster Tails
Shipments to West and East Coasts
Box 278, Bronxville, N.Y. • Phone: DEerfield 7-6322
TWX: NY 1-625 • Cables: FISHSTIX NEWYORK



Larry M. Kaner, new executive vice president of Franco-Italian Packing Co., Terminal Island, Calif., packers of tuna, sardines and mackerel.

Larry Kaner Handling Franco-Italian Sales

Larry M. Kaner, formerly vice-president for sales and advertising of Westgate California Corporation (Breast-O'-Chicken tuna), San Diego, has been named executive vice-president in charge of sales of Franco-Italian Packing Co., it was announced in February by Mitchell C. Mardesich, president and general manager of Franco-Italian.

Mr. Kaner's appointment, Mr. Mardesich said, is a step in the development of "ambitious" plans for Frnaco-Italian. His first assignment will be to assess the opportunities nation-wide for the company's labels, Sea Boy tuna and sardines, Superior and Sea Ace sardines and mackerel, and Petuna red meat pet food.

Mr. Kaner is a nationally known figure in tuna sales. He first got into the field with Sun Harbor Packing Co., San Diego, in 1947 as assistant advertising director. He became field sales director for Westgate the following year, after Westgate acquired Sun Harbor, and was active in opening up Eastern markets for Breast-O'-Chicken tuna. In 1950 he became sales manager, Southern division of Westgate, in 1952 he rose to national sales manager, and became vice-president for sales and advertising in 1957.

Franco-Italian, Mr. Mardesich said, now has about 50 food brokers handling nation-wide sales.

Tokyo Foods Co. Now Is Toshoku, Limited

Tokyo Shokuhin K. K., generally known in English-speaking countries as Tokyo Food Co., Ltd., and in Japan by the abbreviated name "Toshoku," has changed its name officially. It is now Kabushiki Kaisha Toshoku.

According to Director Ichiyanagi, the English name will be Toshoku, Ltd. (Pronunciation in English: Toh-sho-ku, with all the vowels long.)

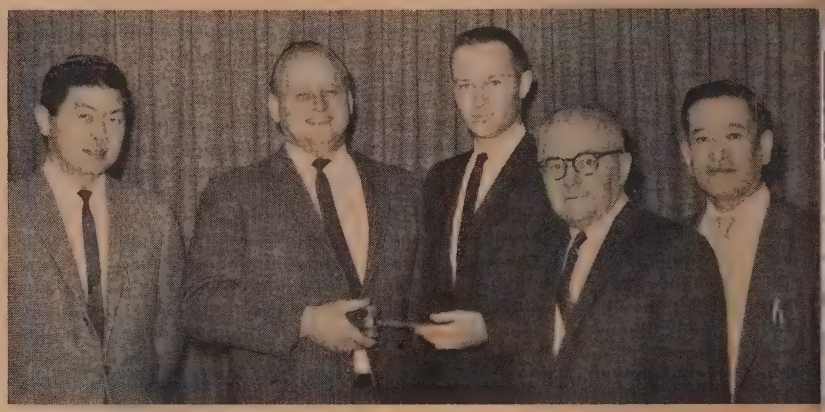
Booth Fisheries' Sales Up, but Profits Decline

Increase of 6% in sales volume for its fiscal year is seen for Booth Fisheries Corporation by Robert P. Fletcher Jr., its president, but profits are expected to decline 13% to about $2.20 per share, as against $2.67 on sales of $48,319,795 in 1959-60.

Profit decline was blamed largely on narrowed margins on shrimp and world-depressed price of fish meal.

In capital expenditures the company completed a new fillet plant at Fortune, Newfoundland; constructed three new trawlers; enlarged and modernized its St. Louis establishment; and embarked upon a notable shrimp processing plant at Brownsville, Texas.

Admiring award-winning Rupert Fish Company, Inc. package are E. S. Turnill (left), manager of fresh and frozen sales, and O. C. Cook, vice-president in charge of sales for Crown Zellerbach producers of the package. Rupert won two major awards from National Flexible Packaging Association at 1960 competition in Boca Raton, Florida.



New officers of the Southern California Fisheries Association take over from the old. Yielding the gavel to Incoming President **Ronnie Jack** of E. C. Jack Brokerage (third from left) is **Joe Sulentor** of R. M. Sloan Co. Others, left to right, are **Dick Numamoto** of Pacific-California Fish Co., incoming vice-president; **Bart A. Ghio,** secretary, and **Jimmy Okamoto,** American Fish Co., incoming treasurer. New directors are **E. E. Amende,** Amende & Schultz; **Bert Boyagian,** Mel-Rox Sea Food Co.; **Norman Burgess** of Norm's Sea Food; **D. B. McGee,** Los Angeles Smoking & Curing Co.; **Harry Reskin,** Freeman Certi-Fresh Co.; and the officers pictured here.

Rupert Fish Package Wins National Awards

Rupert Fish Company, Inc., with offices in Seattle, San Francisco, Los Angeles, Chicago and New York, was named a double-winner by the National Flexible Packaging Association at its 1960 competition at Boca Raton, Florida.

Both awards were focused on the Rupert Brand Rainbow Trout package, which is adapted throughout the Rupert line.

A first place award was given in the "Paper Wraps" category and a merit achievement award was accorded the same package in the "Frozen Foods" competition.

Judges selected the package for the first place award for its basic design incorporated with brand identification, commodity identification, and vignette illustration into a colorful and compelling design. The package was produced by Crown Zellerbach Co., Western-Waxide Division.

The merit achievement accolade was awarded for the advantages of its lower cost and storage adaptability over other methods of packaging.

E. S. Turnill, manager of fresh and frozen sales for B. C. Packers, outlined what his company set out to achieve with the package and design:

"We wanted an economical package for warehousing, freight charges and packaging speed," he said.

Other objectives:

A contemporary look to brighten stores; clear, concise, instructions; a package containing just the right amount for the housewife; and a package so attractive that customers will want to buy.

Vancouver Businessmen Honor E. L. Harrison

E. L. (Bill) Harrison, a vice president of British Columbia Packers, Ltd., has been elected president of the Vancouver Board of Trade, senior businessmen's organization. In charge of his company's industrial and public relations for several years, Mr. Harrison has played an influential part in supporting fisheries interests in the recurrent power-fish controversy in B. C.

SERVICE
IS MORE THAN A WORD... IT MEANS PEOPLE

FOOD Sales Management People

FOOD Sales Getting People

FOOD Sales Administration People

L. H. Frohman & Sons has the skilled people necessary to market and promote the sales of deserving food products in Chicago and Midwest area. Wholesale, Manufacturing, Retail, Institutional and Vending coverage.

L. H. FROHMAN & SONS
Sales Agents
FOR PRODUCERS OF FOOD PRODUCTS
310 N. DEARBORN STREET CHICAGO 10

PACIFIC PEARL SHRIMP
CRAB • SALMON • TUNA • CLAMS • OYSTERS

PACIFIC PEARL
Northwest Sea Foods

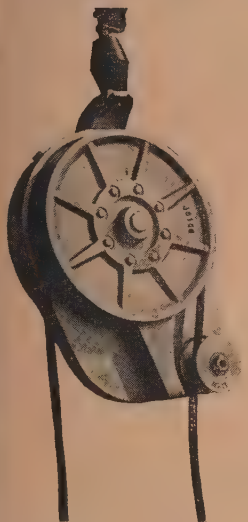
A familiar sight in grocery stores from coast to coast!

- SHRIMP
- CRAB
- SALMON
- TUNA
- CLAMS
- OYSTERS

IVAR WENDT
Exclusive Sales Agents
701 Central Building - Seattle, Washington
Phone MA.4-4865 • Teletype SE-573

MARCO SETS THE PACE WITH ANOTHER FIRST

Hydraulic-Driven Crab and Long Line Block



← HAULS CRAB POTS FASTER 50 POTS PER HOUR

← SAVES WEAR ON NYLON, MANILA AND POLYPROPYLENE WARPS

← AUTOMATIC PRESSURE RELEASE ELIMINATES DANGER OF BREAKING POT WARP

← LIFTS STUCK GEAR

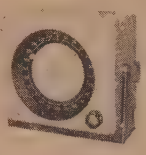
← ADJUSTS TO ANY SIZE WARP

U.S. Pat. No. 2 733 531
Canadian Pat. No. 522 263

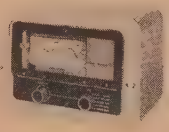
MARINE CONSTRUCTION AND DESIGN CO.
2300 COMMODORE WAY • SEATTLE 99
AT 3-2580 Cable: Marco

Bendix
marine equipment

THE NAME MILLIONS TRUST



DEPTH INDICATORS
Brightest flashing indicator for accurate depth reading. 4 models.



DEPTH RECORDERS
Accurately chart undercraft conditions of fish, navigation and anchoring. 7 models to 200 fathoms.

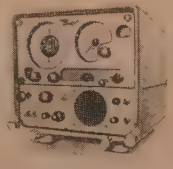
AUTOMATIC PILOTS
Inexpensive automatic steering for any vessel, large or small. 5 models. Optional remote control.

MARINE RADAR
Low cost 7" model MR-4 . . . 12 mile range. High performance 10" models MR-3D & S.

CITIZEN'S BAND
Top performance. 4 channels.

RADIOTELEPHONES
5 models 25 to 250 watts. Transistorized.
RECEIVERS—Two models.

DIRECTION FINDERS
3 models including transistorized portable.



AUTOMATIC DIRECTION FINDER
Instantaneous visual bearings of pin point accuracy.

the only complete electronic line

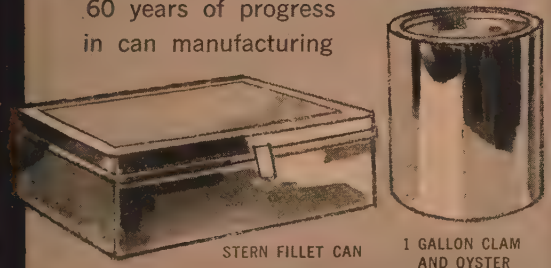
Bendix-Pacific Division
MARINE DEPARTMENT
NORTH HOLLYWOOD, CALIF.

THE Bendix CORPORATION

STERN
a good CAN name
since 1901

CANS FOR INDUSTRY

60 years of progress in can manufacturing

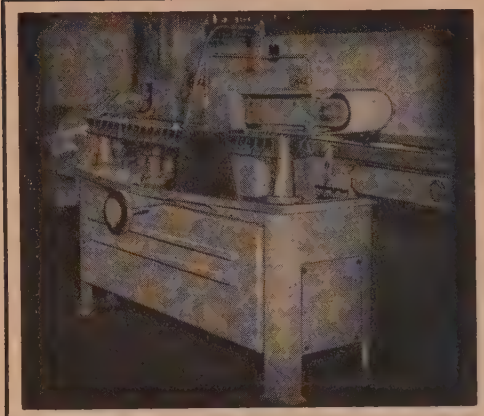


STERN FILLET CAN

1 GALLON CLAM AND OYSTER

STERN CAN COMPANY, INC.

BOSTON 25, MASSACHUSETTS
5437 SO. MASSASOIT AVE., CHICAGO 30, ILL.



The PAK-SHAPER

PREFERRED BY LEADING TUNA CANNERS!

Introduction of the PAK-SHAPER in 1949 developed in tuna canning a greater mechanization than had come about in 30 years of previous growth. Subsequent experience has proved its value to the industry. A large percentage of major tuna operators now employ the PAK-SHAPER.

The PAK-FORMER, designed exclusively for Chunk and Grated Style Pack, is now available to the tuna industry under similar terms as the PAK-SHAPER.

For Complete Information Write to

E. H. CARRUTHERS CO.

P. O. Box 1322, Warrenton, Oregon

TWO GREAT NAMES

SAN JUAN

Ship Ahoy

One Standard of Quality

More than 30 frozen seafoods under both brands, including exclusive new vacuum-packed steaks and fillets—freshest frozen fish in your freezer!

SAN JUAN FISHING & PACKING CO.

Pier 31 • Seattle, Washington

BUILDING and MAINTENANCE

FISH BOATS

WATER TAXIS

FERRIES

FIRE BOATS

TUG BOATS

DRYDOCK
MARINE WAYS
WHARFAGE

ENGINES

OSCO-FORD DIESELS

•

PALMER GASOLINE

•

RCA
MARINE ELECTRONICS

•

PROPELLORS

•

MOST SIZES
UP TO 40" IN STOCK

•

MARINE HARDWARE

FELLOWS and STEWART INCORPORATED

TERMINAL ISLAND
CALIFORNIA

World's Most Revolutionary .....
MERCURY FISHING LAMPS,
FISHING GEARS &
BOAT EQUIPMENTS.
Multiply Catch . . Cut Time . . Make Money . .
Main Lines:
Manufacturers & Exporters
SANDEN COMPANY, LTD.
No. 36, 5-chome, Makaujo, Kiro-ku, Tokyo, Japan
Cable Address: SANDENMERCURY TOKYO

VITA FOOD

TRADE MARK

PRODUCTS, INC.

GENERAL OFFICES — NEW YORK CITY

Importers & Exporters — Producers, Packers Smokers

FISH OF ALL KINDS

Mildcured and Frozen from all Principal Centers of Alaska

SEATTLE OFFICE — 1844 WESTLAKE NORTH

B. C. Salmon Slogan for 1961 — "KEEP YOUR FINGERS CROSSED"

• British Columbia salmon operators are keeping their fingers crossed and hoping for the best. That's about all that can be said concerning their salmon expectations this year. Nowadays every forecast concerning production has to be hedged in so many ways that the end result is nebulous. However—

If the Sockeye predictions of the International Pacific Salmon Fisheries Commission are borne out, there should be an international *run* of between 4,000,000 and 7,000,000 fish, and the estimates for regulatory purposes have been set at a mid-point of 5,500,000 fish.

That would mean a run of almost twice as many Sockeye as in 1960, and these figures apply of course only to treaty waters. For instance, there *could* be an abundance of Sockeyes in the Johnstone Straits and further north to help swell the over-all pack. In any event, if the Commission's estimate is fulfilled, the run will be the best for the cycle since 1917, which would be nothing to cry about.

The early Stewart run will give the Commission staff its first genuine 1961 indication of what is in store for the Fraser River Sockeye, but that doesn't usually peak until early July, so the period of relative uncertainty has quite a while to run.

• One of the imponderables of the past few seasons, and it prevails this year, is ocean survival. A few years ago this area of influence on the Sockeye runs was relatively consistent from year to year, but lately the true effect of ocean survival doesn't show up until the season is fairly well advanced. Ocean survival is now one of the most important factors in making predictions extremely difficult. It has frequently made a shambles of estimates based entirely on escapement figures.

Then of course, there is the ever-present uncertainty as to whether fishermen and operators will be able to reach a prompt settlement of their price discussions. The fishermen usually wait until after their Spring meeting before setting their demands and, if the pattern of the past few years is followed again in 1960, the negotiations will probably continue for several weeks. In the meantime, all that can be hoped for is that whatever agreement is reached it will come before the actual fishing season opens because this year the restrictions will be so severe that every day's fishing will have more than usual importance.

• In view of the sorry condition of the industry in 1960, with catches and packs uniformly low in all the major salmon divisions, with unit prices for halibut over 2 cents a pound less than in 1959, with the herring fleet idle for eleven months of the year and whaling suspended completely, almost any foreseeable result would represent an improvement this year over Sad '60. All things considered, the industry in B. C. looks for a much better year and, barring unforeseen troubles, every company will be active.

Meanwhile, it is possible to tally the returns of 1960 on the basis of final statistics prepared by the Canadian fisheries department. While it doesn't make particularly cheerful reading, it is official. Landings of salmon in 1960 as reported on sales slips were the lowest for any year since records were first kept in 1910 and totalled only 75,150,000 lbs. There were no disruptions in salmon fishing due to strike action, but runs to most areas of the province were even lower than expected. However, higher unit prices for salmon resulted in landed values totalling $18,400,000 only slightly lower than reported in 1955 and 1957 when salmon landings were 80% higher than in 1960. Incidentally, the landed value of salmon in 1958 was more than $37,000,000.

Landings of all species of salmon were lower than during cycle-year periods, Chum landings being the highest for any species and representing 26.2% of the total. Pink landings were just a shade less than 17,000,000 lbs.

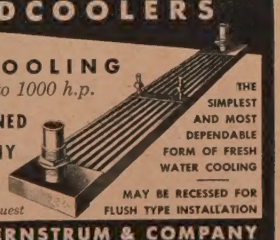
• Of the total salmon catch, gillnetters landed 48.1% of the total, compared with 42% of the total in 1959. Percentage of salmon caught by seiners declined to 31%, the lowest percentage since the sales slip system was introduced in 1951. Troll landings were down to 16,200,000 lbs. from 25,000,000 lbs. in 1959. The Pink run is areas 5, 6, 7 and 8 was one of the few bright spots in the commercial fishing picture last year—a total of nearly 3,000,000 Pinks, with almost half being taken in area 8.

315 N. Avalon,
Wilmington, Calif.
Phone: TErminal 4-4538

Official Sales Agency for . . .
U. S. HYDROGRAPHIC OFFICE &
COAST AND GEODETIC SURVEY

CHARTS and PUBLICATIONS

GRIDCOOLERS
Engineered
KEEL COOLING
for Engines to 1000 h.p.
• STREAMLINED
• SEAWORTHY
• RELIABLE
Literature on Request



THE SIMPLEST AND MOST DEPENDABLE FORM OF FRESH WATER COOLING

MAY BE RECESSED FOR FLUSH TYPE INSTALLATION

R. W. FERNSTRUM & COMPANY
MENOMINEE, MICHIGAN

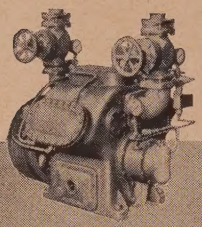
FOR BOATING'S
toughest jobs

Here's the power you want for the really tough jobs of commercial boating—Evinrude's 1961 Big Twin. Develops 40 hp at 4500 rpm. New, **foolproof** fixed-jet carburetion. Thermostat controlled engine for most efficient performance under all conditions. Fast-stepping, fuel-saving Cruis-Throttle. Amazingly easy manual starting. Choice of props to fit boat and work. Quieter-than-ever operation. Hard-working, smooth-running, load-lugging, long-lasting, sea-going power—at a price that makes it boating's standout value. If you're a boatman whose living depends on dependable power, the 1961 Big Twin is for you. See your Evinrude dealer—listed in the Yellow Pages under "Outboard Motors."

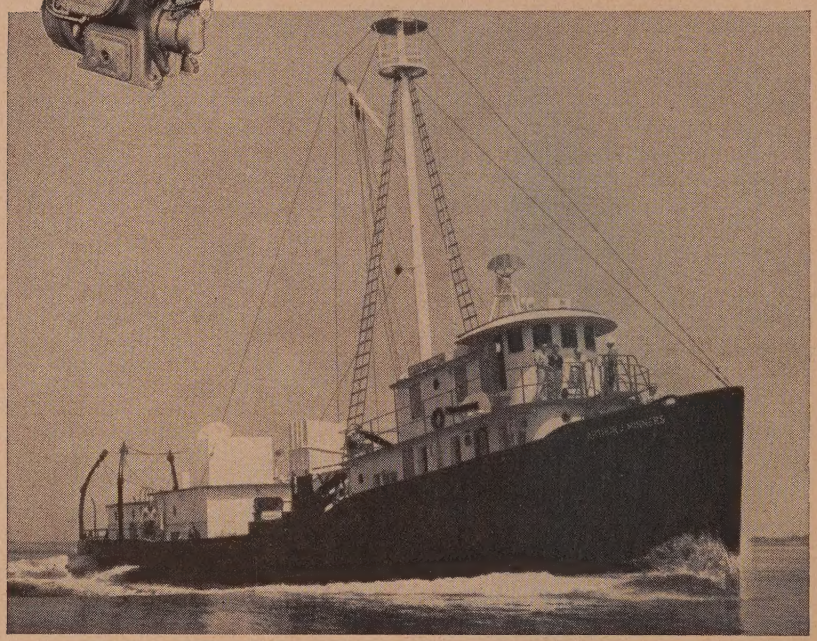
Evinrude Motors, 4143 N. 27th Street, Milwaukee 16, Wis.
A Division of Outboard Marine Corporation
In Canada: Mfd. by Evinrude Motors, Peterborough

EVINRUDE
FIRST IN OUTBOARDS

Can you imagine 1,000,000 menhaden in your hold without refrigeration?



A view of a typical Vilter VMC ammonia compressor of the type used in the A. J. Minners. Vilter VMC compressors supply maximum capacity in a minimum of space.



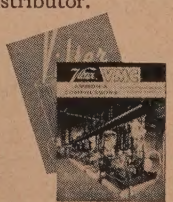
The A. J. Minners owned and operated by Larry Clarke of Smith Research and Development Company was built by J. F. Bellinger & Sons Boat Yard of Jacksonville, Florida. The A. J. Minners fishes for menhaden and its refrigerated holds have a capacity of 1,000,000 fish.

Top profits require prime fish at point of delivery for proper processing. And that's why Vilter was selected to provide the refrigeration for the menhaden vessel, *A. J. Minners,* with a capacity of 1,000,000 fish in her holds.

The Vilter refrigeration system for *A. J. Minners* includes a vertical single pass water chiller divided into four sections. Four water pumps take water from the four holds, pass it through the respective section in the chiller and then spray it back into its own hold. The four section chiller and four separate pumps were selected to control the balance of the ship. The compressor is an 8-cylinder VMC ammonia unit direct connected to a 6-cylinder diesel. A Vilter condenser, receiver and float complete the installation.

To prove the Vilter design and refrigeration equipment, a Vilter representative accompanied the *A. J. Minners* on an early cruise. The refrigeration equipment quickly brought the water down from 60° F. to 37° F. and the total catch of 400,000 fish was held at this temperature. Fish arrived at port cold and firm and less than 2% were broken.

For reliable, test-proven refrigeration to meet your requirements, call or write Vilter direct or see your nearest Vilter distributor.



Vilter® refrigeration air conditioning

The Vilter Manufacturing Company
Milwaukee 7, Wisconsin

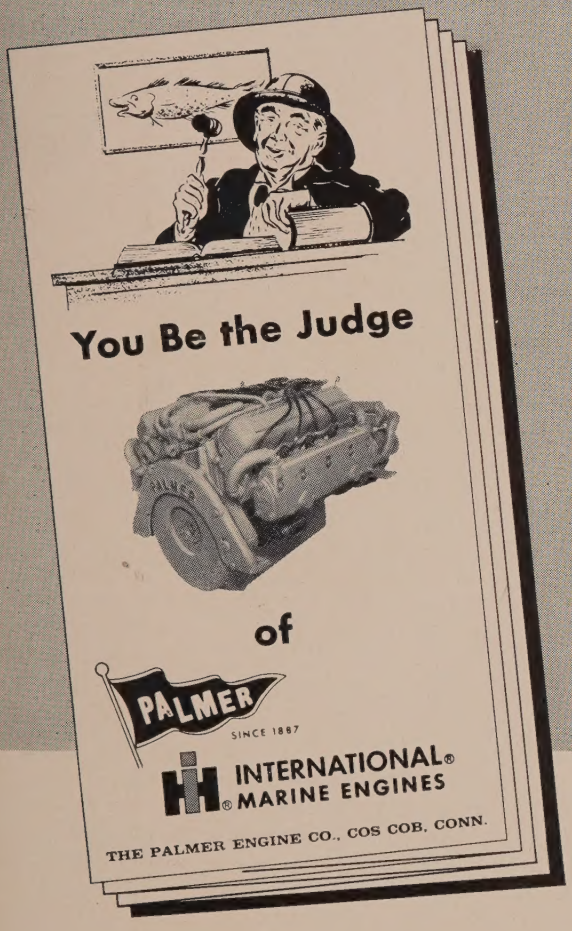
Air Units • Ammonia and Freon Compressors • Booster Compressors Baudelot Coolers • Water and Brine Coolers • Blast Freezers Evaporative and Shell and Tube Condensers • Pipe Coils Valves and Fittings • Pakice and Polarflake Ice machines.

Write for helpful bulletins to The Vilter Manufacturing Company, Dept. PF-612 2217 South First Street Milwaukee 7, Wisconsin

ADVERTISING INDEX

American Marine Paint Co. ... 3
Bendix-Pacific Div., Marine Department The Bendix Corporation ... 4
Brownell & Co., Inc. ... 3
Carruthers Co., E. H. ... 4
Classified Advertising ... 3
Columbian Rope Co. ... 4
Consolidated Net & Twine Co. ... 2
Cummins Engine Co. ... Back cover
Devoe & Raynolds Co., Inc. ... 2
duPont de Nemours & Co., Inc., E. I. ... Inside front cover
Evinrude Motors ... 4
Fellows & Stewart ... 4
Fernstrum & Company, R. W. ... 4
Fish Net & Twine Co. ... 3
Fremont Electric Co. ... 2
Frohman & Sons, L. H. ... 4
Goodrich Company, Sponge Products Division, B. F. ... 3
Hart & Burns ... 2
Hendry Co., C. J. ... 3
Hiller, Paul W. ... 4
Hirata Spinning Co., Ltd. ... Inside back cover
Kelley-Clarke Co. ... 4
Leslie Salt Co. ... 5
Linen Thread Co., The ... 3
Marine Construction & Design Co. ... 4
Mobil Oil Company ... 1
Murphy Diesel Co. ... 2
Mustad & Son, O. ... 2
N C Marine ... 3
New England Fish Co. ... 4
Nippon Rayon Co., Ltd. ... 4
Nordby Supply Co. ... 1
Northwest Instrument Co., Inc. ... 1
Onan & Sons, Inc., D. W. ... 2, 3
Outboard Marine International S. A. ... III
Pacific Marine Supply ... 2
Pacific Telephone ... 2
Pacific Towboat & Salvage Co. ... 3
Palmer Engine Company, The ... Inside back cover
Peelers Company, The ... 4
Samson Cordage Corporation ... 2
Sanden Company, Ltd. ... 4
San Juan Fishing & Packing Co. ... 4
Snow-Nabstedt Gear Corporation ... 3
Standard Oil Company of California ... 2
Starr Net Co., A. M. ... 2
Stern Can Co. ... 4
Stix, Inc., Robert L. ... 4
Tacoma Boatbuilding Co. ... 1
Twin Disc Clutch Company ... 4
Viking Equipment Co. ... 1
Vilter Manufacturing Co. ... 4
Vita Food Products, Inc. ... 4
Wendt, Ivar ... 4

THIS FOLDER GIVES VITAL FACTS TO CONSIDER IN SELECTING A MARINE ENGINE



SEND FOR YOUR COPY ... IT'S FREE!

As a service to boatmen, PALMER has prepared a series of questions a buyer might well ask when considering the purchase of a marine engine. This folder, "You Be the Judge," gives PALMER'S answers to these vital questions. Send for your FREE copy today!

Also request a free copy of the folder "PALMER ENGINES FOR 1961." It includes full data and prices on the new PALMER Diesel and ten PALMER Gasoline Marine Engines.

THE PALMER ENGINE CO.
613 Bolling Road, Cos Cob, Conn., U. S. A.

SINCE 1866

HIRATA

MANUFACTURERS OF FISH NETTING AND TWINES

NYLON
MANRYO
SARAN-N
COTTON

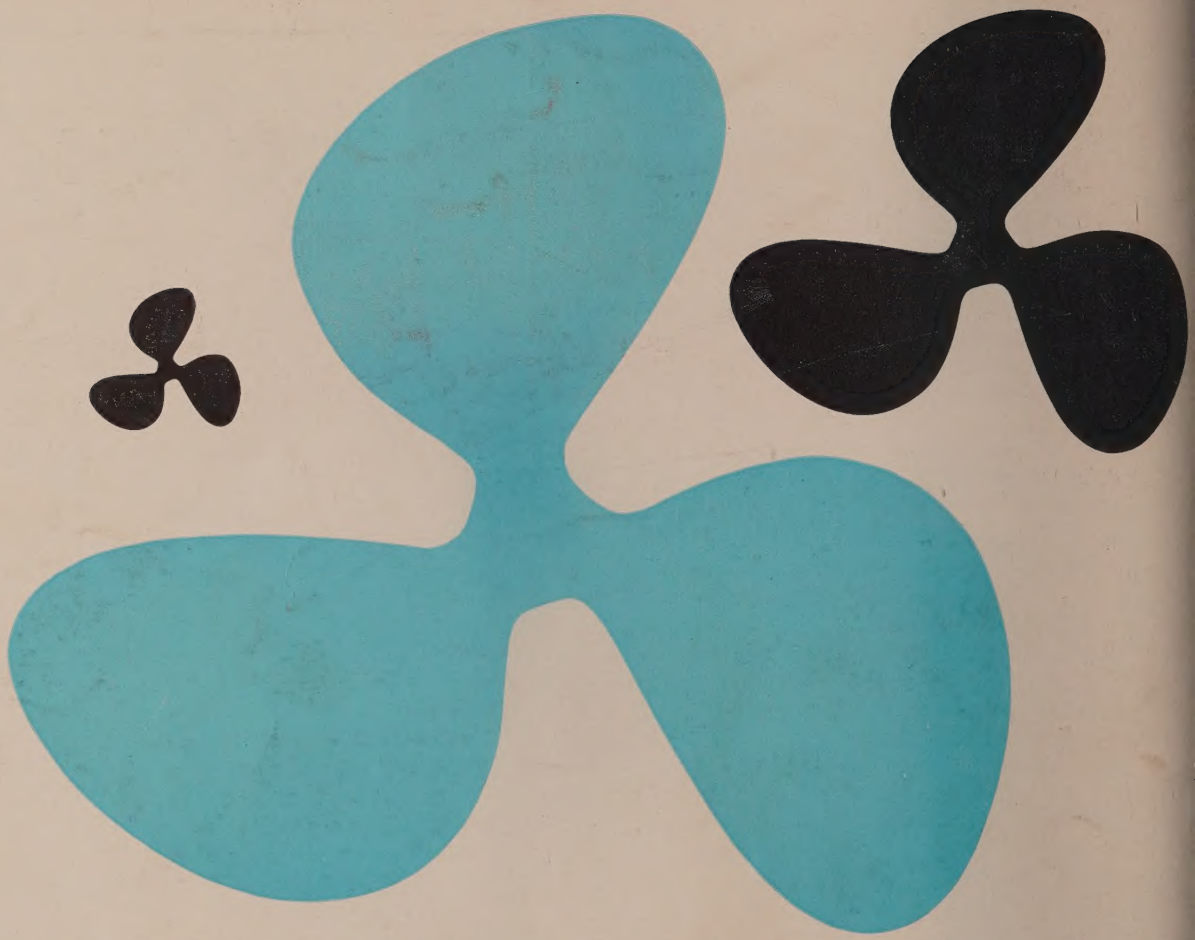
HIRATA SPINNING CO., LTD.

32 Amagasuka, Yokkaichi, Mie-Pref., Japan

PACIFIC COAST REPRESENTATIVE:

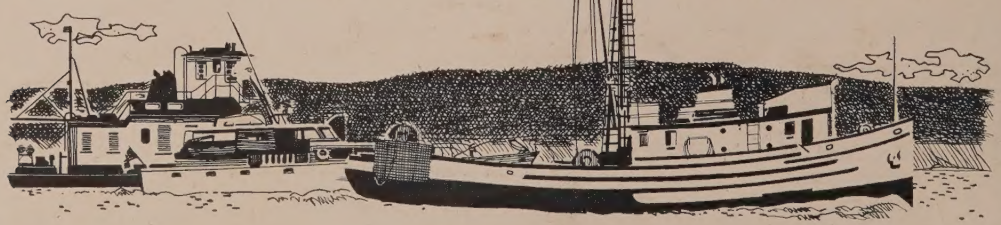
JOHN E. RICHARDSON

74 Lagunitas Drive,
San Francisco 27, Calif., U. S. A.
Telephone: OVerland 1—1196



Big props, little props, cost less to turn with Cummins Marine Diesels

There are many reasons why Cummins Marine Diesels are more profitable to own and operate. *Efficiency*—Cummins basic 4-cycle design combined with the exclusive Cummins PT fuel system means dependability day-in and day-out. *Long life*—You can expect satisfactory performance for years and years. Cummins Marine Diesels have the ruggedness that weathers any operating conditions. *Maintenance*—Each engine is designed for easy servicing and requires only simple maintenance to stay in top operating shape. *Safety*—Cummins Diesels deliver safe, sure power on No. 2 diesel fuel. *Horsepower range*—Whether you operate large or small boats—inland or on the sea—there's a Cummins for you. 28 models are available from 70 to 600 horsepower. What's more, Cummins service points are conveniently located along the major waterways and in key ports. This means you're never far from help whenever you need it.



CUMMINS

PACIFIC FISHERMAN
PACIFIC WORK BOAT
SEA & PACIFIC MOTOR BOAT

Watson & Meehan

San Francisco
Stockton
Eureka

Cummins Diesel Sales of Washington, Inc.

Seattle
Aberdeen

Cummins Service & Sales

Los Angeles
Montebello
San Diego

North Coast Marine Engine & Equipment Co.

Seattle

Cummins Diesel Sales of Oregon, Inc.

Portland

Authorized distributors for Cummins Engine Company, Inc., Columbus, Indiana

2-3-61